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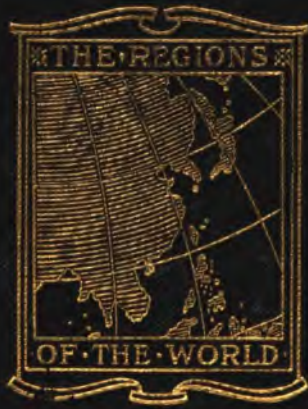
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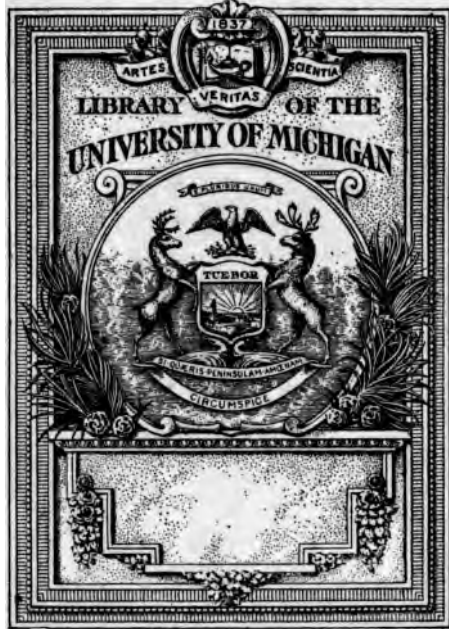
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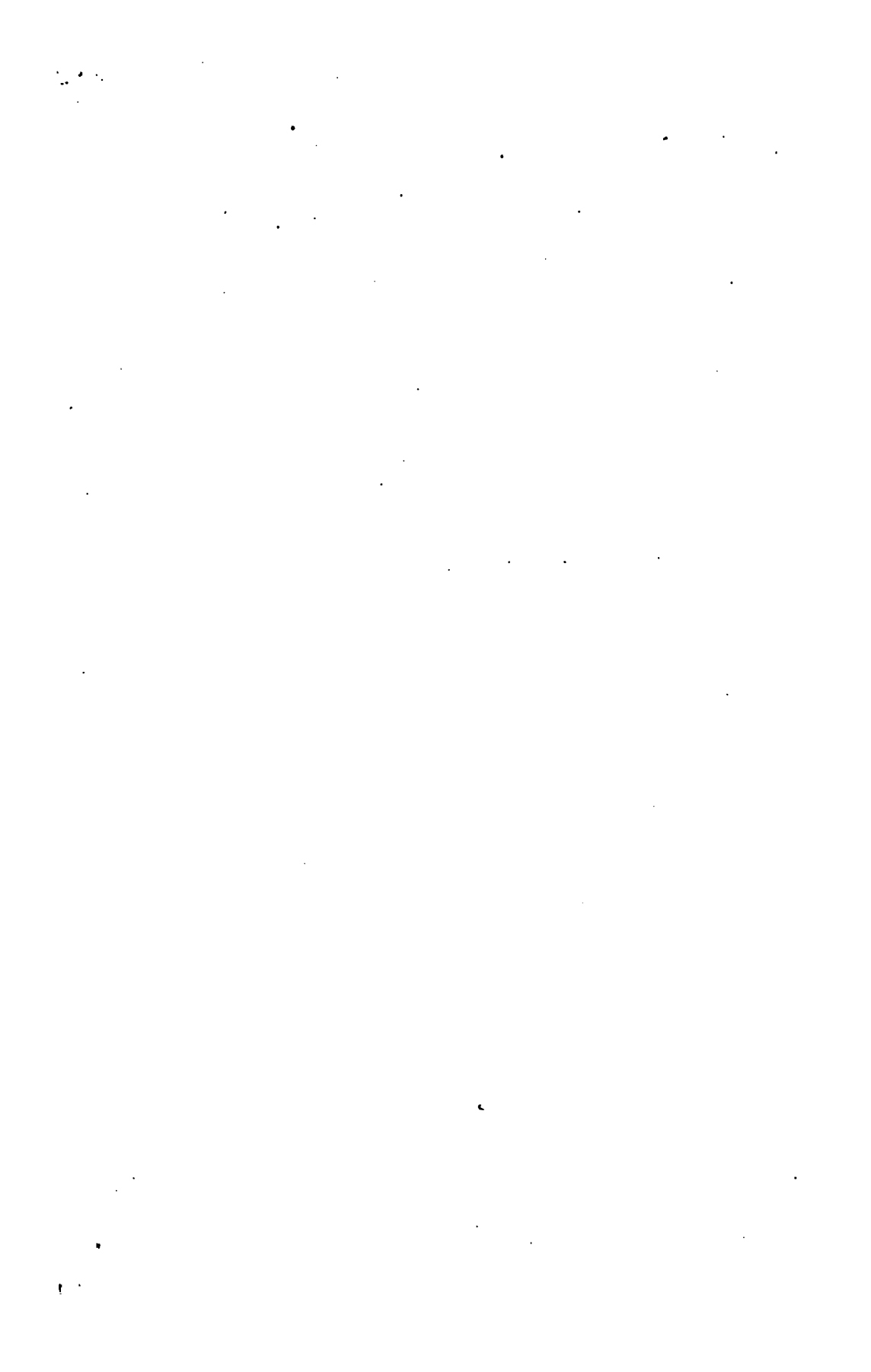
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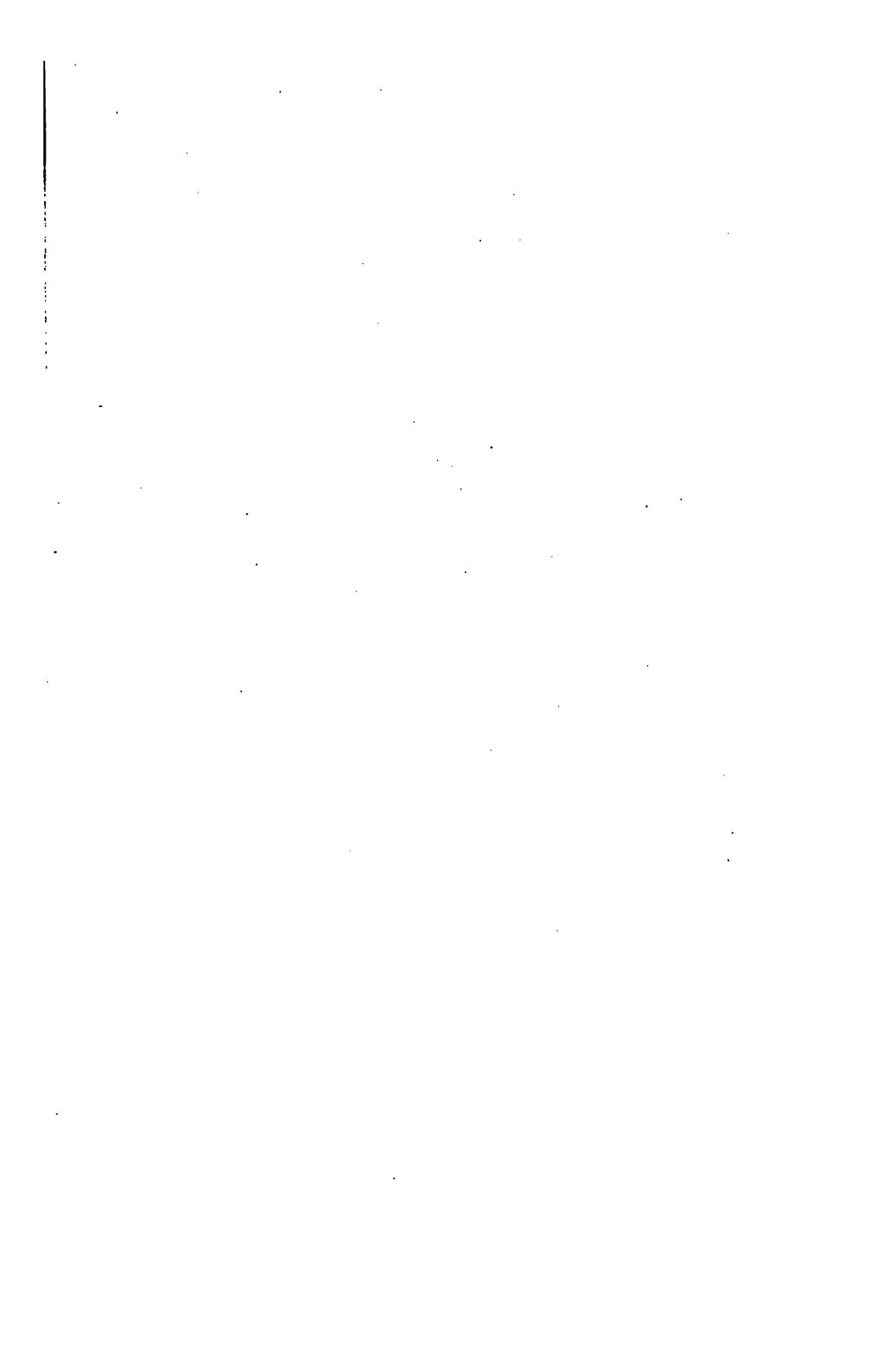
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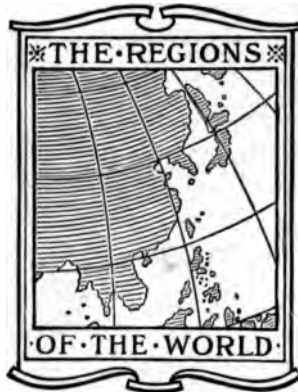
THE FAR EAST

BY

ARCHIBALD LITTLE

AUTHOR OF 'THROUGH THE YANGTSE GORGES,' 'MOUNT OMI
AND BEYOND,' ETC.

'ORIENTIS ORAE SERAS ET INDOS'



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PREFACE

THIS work owes its origin to the suggestion of Mr. Mackinder and its completion to his encouragement. The author, not being a Geographer or Geologist by profession, as are the distinguished writers of the Geographical series with whom he has the honour to be associated, undertook the task with much diffidence: he did so, however, in the hope that his long personal acquaintance with the bulk of the countries described would make amends for his lack of expert knowledge; and that the power, acquired by a life-long residence in the East, of imparting a 'local atmosphere' to his descriptions would atone for the many deficiencies which he is the first to recognize.

The book has been written literally 'in the intervals of business' and that of an absorbing character: but this business has necessitated extended travel in China and the neighbouring countries, and so facilitated the accumulation of the needful knowledge of the regions described. The first of such journeys was made in the year 1860, at the time that Shanghai was invested by the Taipings; and led from Ningpo up the T sien-tang river through Nganhui, and so by way of the famous potteries of Kingtehchen down the Poyang lake to Kiukiang—the whole country traversed being the scene of the great struggle then going on between the forces of Hung-hsu-chuen and the Imperialists; a long journey which his acquaintance with the language, and the prestige that in those days surrounded the Englishman in China, enabled him to accomplish in safety. The present work might have been more elaborate but for the author's remoteness from the great literary centres: yet possibly there is a compensation in this respect, in that the book is not crowded with more matter than

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the average reader can digest ; although at the same time its value as a work of reference is undoubtedly impaired. To comprise in a handy volume a description of such a vast area of the earth's surface, and of such a series of countries and peoples, has considerably taxed the author's powers of compression, and he trusts that the result, if not affording complete satisfaction to the scientific inquirer, may yet prove its worth as a useful *vade-mecum* to the traveller in the Far East, and likewise as an epitome acceptable to the general reader at home. He trusts that the book will be thus received, and that its superficial treatment, as compared with the wealth of detail and the plethora of accurate information that distinguish the accompanying volumes of 'The Regions of the World,' will not render it altogether unworthy of a place in this valuable series.

The author has in the volume itself made his acknowledgements to all the authorities consulted : he has further to express his obligation to Dr. Morrison, the indefatigable correspondent of the *Times*, for allowing him free access, during his recent stay in Peking, to his valuable and truly unique collection of books on China ; to Major Ryder, R.E., for kindly revising the chapter on Tibet ; and to his old friend, Mr. Thos. W. Kingsmill of Shanghai, for revising the ethnographic and antiquarian data, upon which subjects he is, in China, the chief living authority.

ARCHIBALD LITTLE.

LUNGMENHAO (Dragon-gate Inlet),
CHUNGKING, CHINA.

EDITORIAL NOTE

DURING Mr. Little's absence in China, the proofs of this book were kindly read for me by my colleague at the London School of Economics, Mr. A. J. Sargent, to whom my thanks are due. Mr. Little returned in time to see the last revise.

The maps and diagrams in the text have been prepared by Mr. A. W. Andrews of the Diagram Company, to whom and to Mr. J. G. Bartholomew, who executed the coloured maps, my thanks are also due.

H. J. M.

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THE FAR EAST

CHAPTER I

DEFINITION

THE portion of the earth's surface comprised in this term covers a vast extent of territory. Setting aside the Dutch East Indies, a group of islands many of which are singly as large as a European state, aggregating an area equal to that of the European continent outside Russia; as well as the Malay peninsula, which, attached to the mainland alone by the narrow isthmus of Kra, may be treated as belonging geographically, as it assuredly does ethnographically, to the great Malay archipelago; we have the whole of Eastern Asia outside of British India and Siberia for our theme. The Philippine group should also rightly be included in the 'Far East,' but it is comprised in the Malay archipelago, and so is technically beyond our limit. We include then in the definition, for the purpose of the present work, the continental countries of China with its outlying dependencies, Siam and Indo-China, together with the long string of islands in the Pacific which make up the empire of Japan—being all the countries commonly understood in the term 'Far East.'

The varying scales on which the maps in our atlases are drawn render them utterly deceptive as far as comparative areas are concerned, and an atlas of the world on one and that a fairly large scale is a desideratum for which we shall probably have long to wait. Occasionally an inset map of the British Isles is added to maps of Asiatic lands and forms a welcome basis of comparison. When we see Great Britain and Ireland superimposed and enclosed in the one island of Borneo, or the whole of France included in the one Chinese province of Szechuan, untravelled readers are enabled to grasp the idea that Asia covers four and a half times the area of

Europe, and that the Chinese Empire is nearly half as large again as the United States excluding Alaska. Yet Europe looms in our minds greater than Asia; not that the soil of Asia is less productive of all the fruits of the earth that go to supply the needs of humanity in food and clothing; on the contrary, it is infinitely more so, but it fails in its production of men¹. Man being the highest product, to which all other products are purely subsidiary, rightly takes the first place in our estimates of comparative value, and man in his highest present develop-

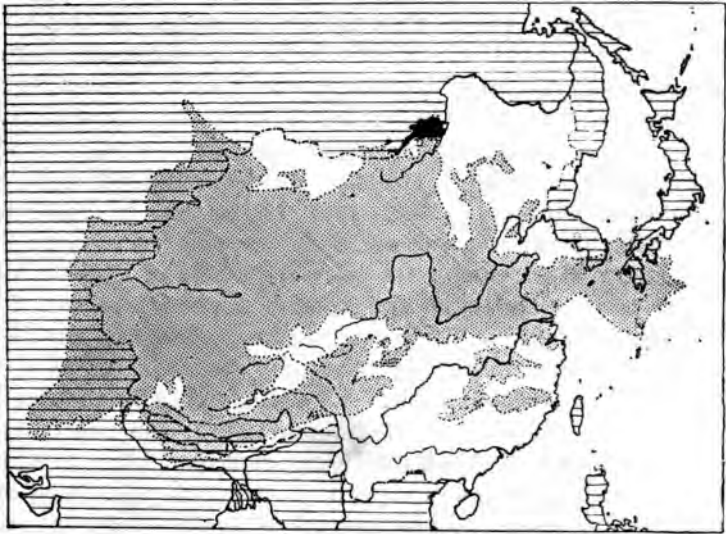


FIG. 1.—Europe superimposed on China.

ment is only to be found in Europe and in the countries colonized and now inhabited, almost exclusively, by men of European descent. The teeming millions of tropical and subtropical Asia are little more than hewers of wood and drawers of water to the Europeans with whom they come in contact. Thus their vast territory and countless numbers fail to outweigh in the world's scale the limited area and restricted population of our own continent, inferior as it is in natural resources;

¹ The epoch-making war between Russia and Japan, which has broken out since this book was written, renders this statement true of the Asiatic *Continent* only.

and so, in one sense, our atlases are not so misleading after all : they fairly represent, from the point of view of the relative value of the humanity produced, the relative values of the areas they depict.

The most valuable, the most important, as well as the most interesting portion of the Far East is the great empire of China—a world in itself, and during several millennia a world to itself. TIEN HIA, literally ‘under Heaven,’ the only term by which the Chinese designate the world, means, to the Chinese, the Chinese Empire. This marvellous people, until the time when

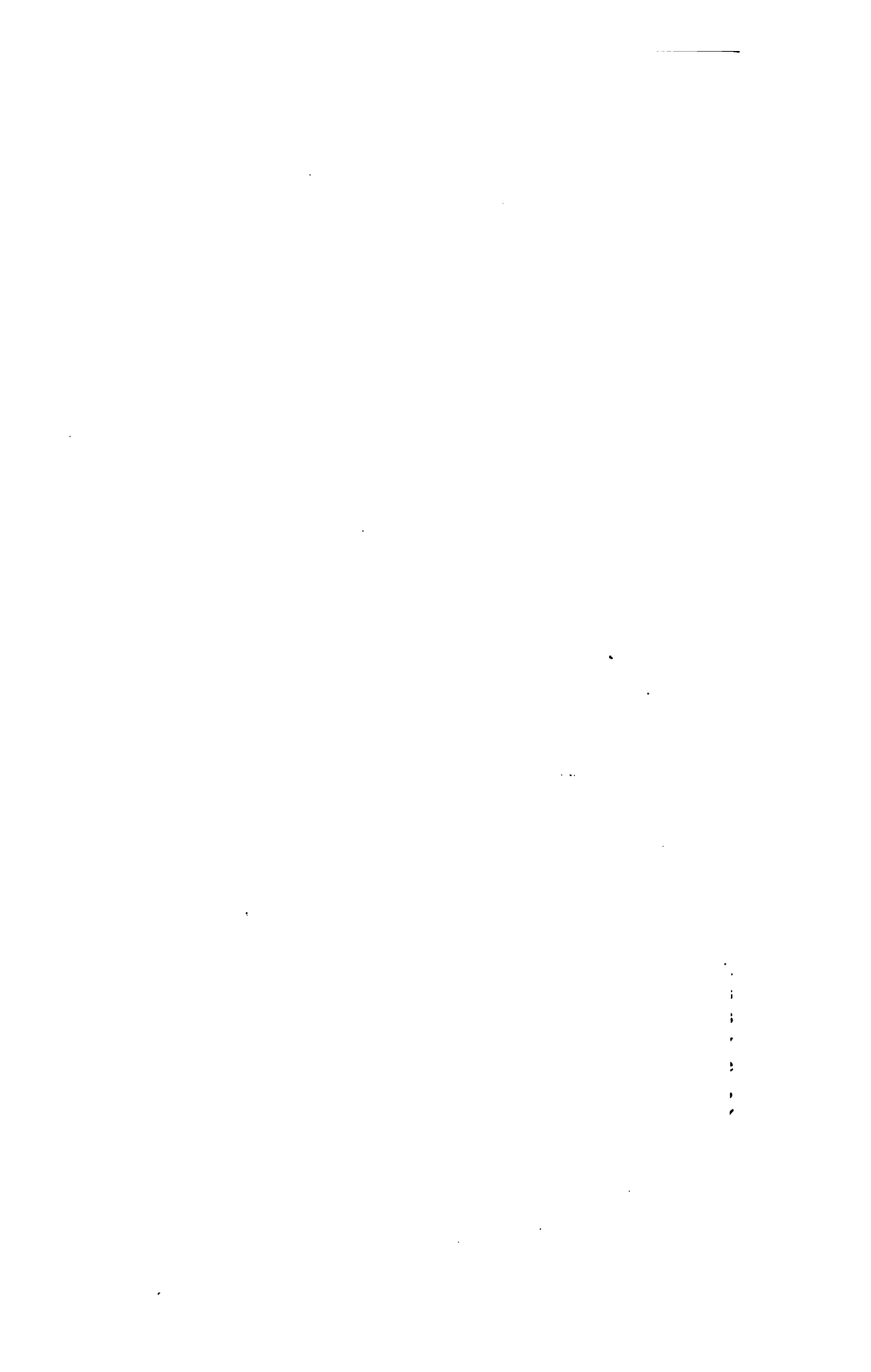


FIG. 2.—Europe. Comparative to area of China proper.

Western nations broke in upon their seclusion, only knew the world as China fringed round by a few semi-barbarous countries, all of which paid not unwilling homage to the Son of Heaven. Nepal, whose northern frontier marches with the Chinese dependency of Tibet and which may be accepted as representative of Hindustan, continues to-day to send tribute to Peking ; as did Burma until she came under British rule in 1885, and Cochin-China and Annam, annexed by France respectively in 1863 and 1878. Tibet, Chinese Turkestan, Mongolia, and Manchuria are all under Chinese rule ; the latter country alone,

since the conquest of China by the Manchus in 1644, having changed places, given a Manchu dynasty to China and made itself supreme over the whole empire. Mountains and deserts, in ancient times impassable, hemmed China in on the north and west, while the Pacific Ocean formed a shoreless sea out of which the sun daily emerged in the east. On the only other open side another impassable sea, bounded by the fiery south, formed the frontier of the 'world,' guarded by death-dealing typhoons and studded with cannibal islands. The only remaining border country, Siam, was covered in ancient times with an impenetrable jungle, sparsely inhabited by wild beasts and by men, the ancestors of the present semi-barbarous Shans, and cut off from China proper by malarious lowlands, which the Chinese reckon fatal to cross even at the present day. Hence the Far East is properly defined as China with a fringe of half-developed countries on its southern border, and with the islands of Japan, including Formosa, in its eastern sea. The Japanese, in the Middle Ages, were known to the Chinese only as a nation of sea pirates who from time to time ravaged their coasts; an attempt to conquer them was made in the thirteenth century, by the Mongol dynasty under Kublai Khan, which then held sway in China. This attempted conquest resulted in an utter defeat of the Mongols and in the sealing up of Japan, by its own initiative, from all intercourse with the outside world. Korea, after being a bone of contention to the two countries during the thirteenth and the fourteenth centuries, eventually settled down under Chinese protection, retaining its independence subject to a nominal tribute to China, until the Japanese war of 1895 resulted in its establishment as a self-contained separate empire. The Liuchiu islands occupied the last place in the fringe of countries to the eastward, their independence being safeguarded by paying tribute to both China and Japan; until recently, on the rise of Japan to a world power, they were made to cut off their connexion with China and forced into direct annexation to the Japanese Empire. Thus the 'Far East' is composed of China and her whilom dependencies plus the empire of Japan, including its recent annexations.

The high Tibetan plateau, with an average altitude of sixteen thousand feet above the sea, slopes eastwards into the Pacific





J. B. Bachelder.

Ocean and the Far East lies on this slope, forming one of the great peripheral regions that depend from the vast highlands in its centre that go to form the nexus of the great Asiatic continent; the culminating highland, the Pamirs, being well named by the natives of India 'the roof of the world.' The high Tibetan plateau falls to the sea in a series of steps, each of the earlier steps buttressed by lofty snow ranges traversable only by difficult bleak passes; its northern boundary is the Kwenlun range, with the Altyn-tagh, which form its buttresses from the Tarim valley—a depression believed to have once been an inlet of the Arctic Sea; while to the south it is buttressed by the ranges, so far unnamed as a whole, which bound the lower inhabited plateau of Tibet, of which Lhasa is the capital, on the north. This first step, running roughly between the thirtieth and thirty-first parallels of latitude, leads down into a comparatively fertile region, twelve to thirteen thousand feet in altitude, and a region blessed with a healthy temperate climate. Farther to the east, this step winds round until it touches the western borders of China proper, where we find a similar temperate plateau of like elevation, before we descend by the next step into the sub-tropical region of the integral Chinese province of Szechuan, one to two thousand feet above sea-level. To the south of Szechuan, the step is less steep. After crossing the ravines of the four great rivers of Eastern Asia which take their rise in the high plateau—two, the Salwin and the Mékong, flowing south into the Bay of Bengal and the China Sea; one, the Yangtse, flowing, first south, in company with the other two down to latitude 26° , and then north and east across China into the Pacific at Shanghai; the fourth, the Yellow River, which, with its source not far distant from that of the Yangtse, flows, after making its great 'Ordos' loop north into Mongolia, due east, through North China, into the Yellow Sea—this last step dips below and is merged in the delta sloping into and beneath this shallow sea, now rapidly silting up before our eyes with the detritus ceaselessly accumulated from the turbid floods of China's two great rivers. These two mighty streams testify in their nomenclature to the isolation of thought of the Chinese geographers: they are known simply as the KIANG and the HO, —the STROM and the FLUSS—the two rivers of the world *par*

excellence, and around them centred the whole development of the human race as known to the Chinese, pending the slow advance of the ancient LIMIN—the black-haired, or, as the etymology of the ‘character’ LI would seem rather to indicate, the race of ploughmen—along their banks: a steady advance from the land now known as Turkestan, begun, in all probability, some three thousand years or more before the Christian era.

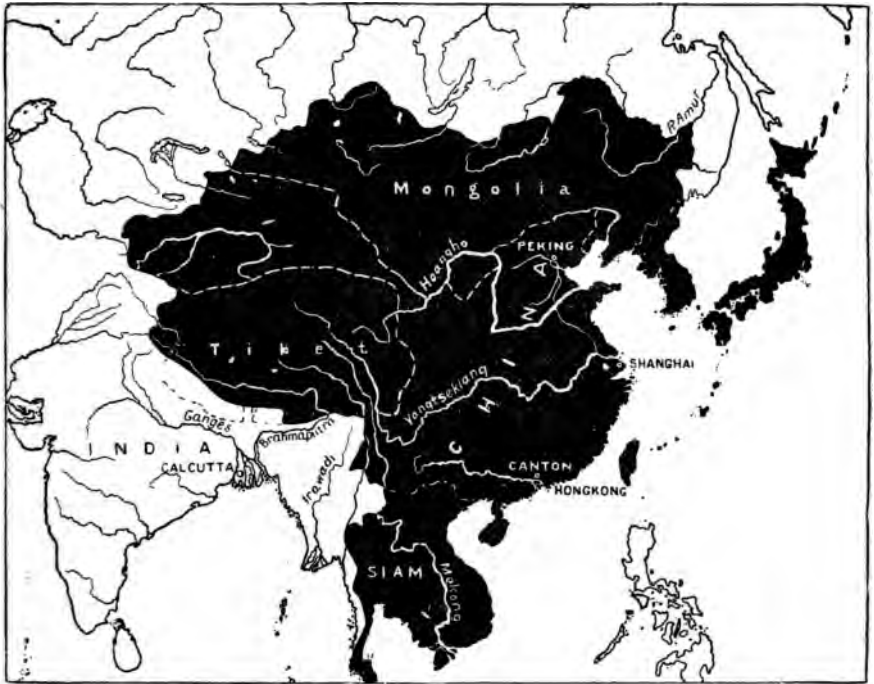


FIG. 3.—The Far East.

The other two great rivers of Eastern Asia, the Salwin and the Mékong, were totally unknown to the ancient Chinese; they were practically discovered by the modern Chinese quite recently, in the period of the actual reigning dynasty, the TATSING, at the time of the ‘expansion’ under the great emperors KANGHI and KIEN-LUNG, in the eighteenth century. The rivers of the north, the AMUR and the SUNGARI, may equally be said to have been ‘discovered’ at the same period.

The last, and the least, of the five great East Asiatic rivers whose basins are embraced in our purview, is the MENAM, the river which, taking its rise to the south of the West-China plateau, has formed the delta of which Bangkok is the centre, and so given rise to the kingdom of Siam. Thus the Chinese Empire with its peripheral dependencies, Siam and Annam, the outlying peninsula of Corea, and the island empire of Japan in the extreme East, together form the subject of our present study.

CHAPTER II

THE CENTRAL KINGDOM : CHINA

WHEN China is spoken of, that portion known as the 'Eighteen Provinces'¹, and inhabited by the pure Chinese race, is usually understood. This, the integral part of the Chinese

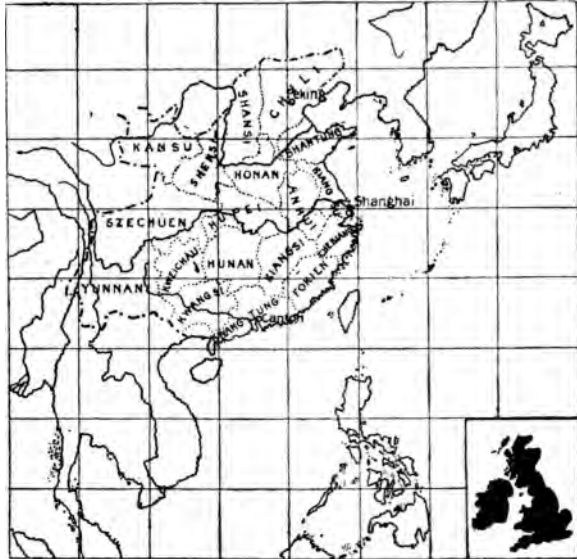
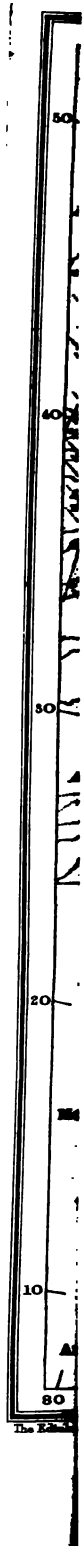


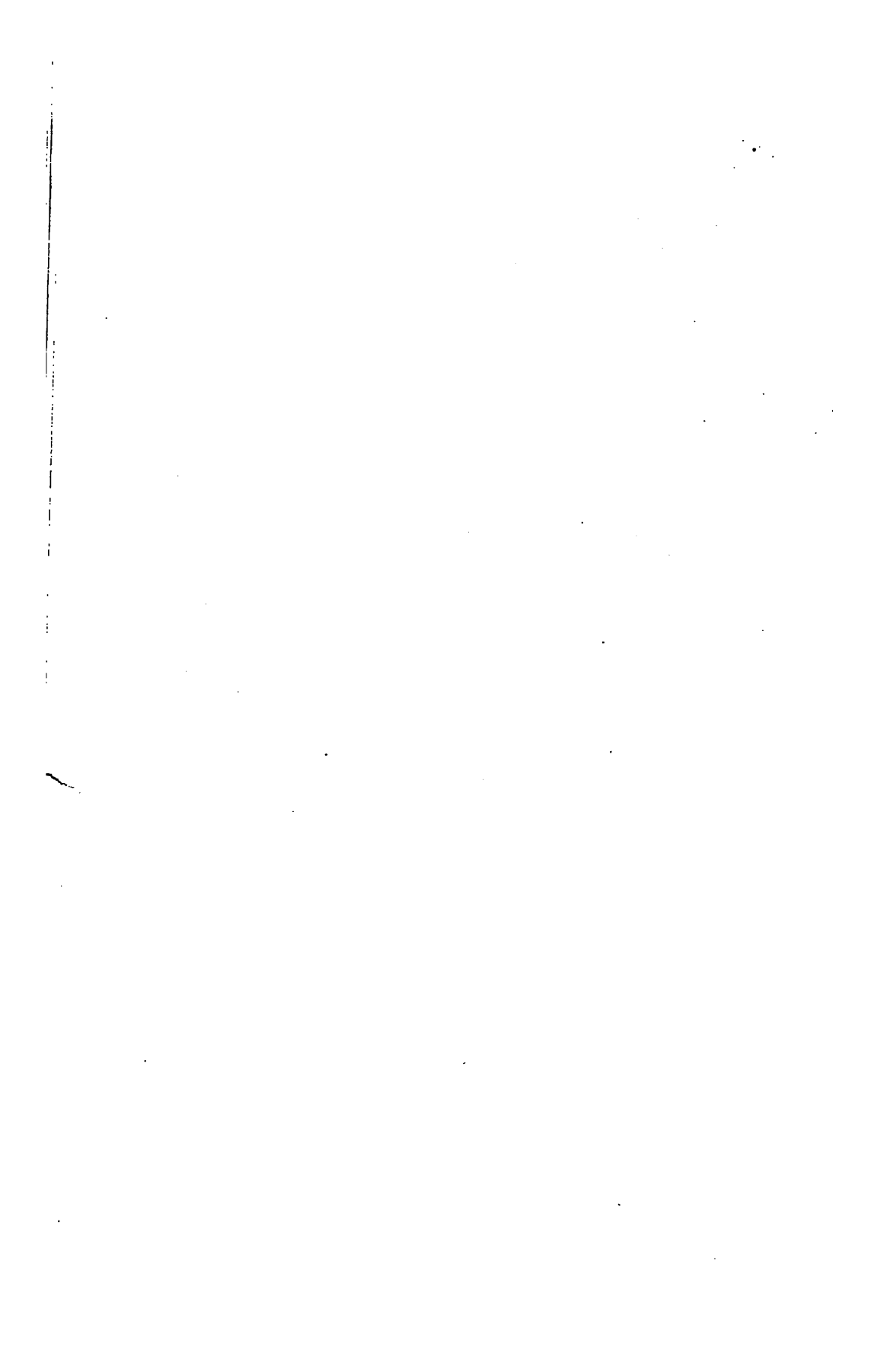
FIG. 4.—Area of China and the British Isles.

Empire, and so called 'China proper,' extends from Hainan and Canton in the tropical south to Peking and the 'Great Wall' in the frozen north; from the wide alluvial delta round Shanghai on the Pacific Ocean in the east to Szechuan and Yunnan, embracing

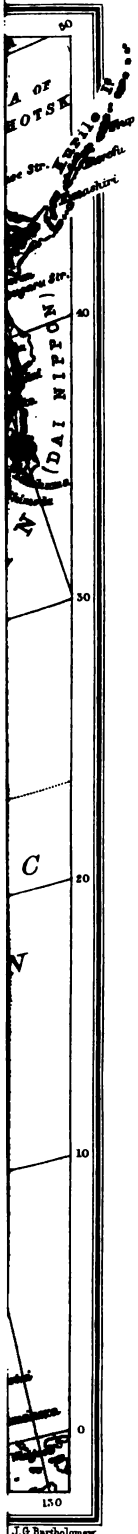
¹ The Chinese still speak of China colloquially as the 'Eighteen Provinces' (Shih-pa shêng), but recently Manchuria and Turkestan have both been directly incorporated:—the former as the 'Tung san shêng' or Three Eastern Provinces, the latter as the Shin Kiang or 'New Dominion.' Thus China is now officially known as the 'Er-shih er shêng' or Twenty-two Provinces.



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the high border-land of Tibet in the west—an area of one and a half million square miles, or seventeen times that of the island of Britain, inhabited by a population estimated at ten times the number of the inhabitants of our own country. But beyond and surrounding this central region, lie the outlying dependencies—Manchuria, Mongolia, Turkestan, and Tibet, together aggregating double the area of China proper, to which (except in proportion) they bear much the same relation as do our own colonies and dependencies to their mother country: indeed, the affinity in the relation of China to her dependencies and that of Britain to her colonies is very marked when compared with those of other European countries to their colonies—in the one bottom fact that neither derives any direct pecuniary benefit from the relation; the obligation, if any, being on the side of the dependency fostered and protected at the expense of the parent country. We shall find other and more striking analogies when we come to describe these countries in detail and the mode of their acquisition by China and present retention, as well as their actual condition. These colonies and dependencies, which encircle China on the land side, comprising mainly snow-clad mountains and half-desert plateaux, shut China off from the rest of the world as effectually as did the Pacific Ocean on the other side. On the north of the uniformly fertile and mainly sub-tropical region of China proper, we find Mongolia, a grass-covered plateau of about four thousand feet in altitude, but subsiding to the west, where it unites with the arid regions of Central Asia, into an actual desert with a fall in altitude to about one thousand feet only above sea-level. Continuing round the frontier and advancing southwards, we come next to the triangle-shaped Ili valley, better known by its capital city Kulja. This Ili valley is separated from the Mongolian plain, or as it is here called by the Chinese, the Shamo or Sand-dust desert, by the Bogdo mountains, a steep lofty range rising to twelve and fourteen thousand feet, crossing which we descend to Kulja on the Ili river at two thousand feet above sea-level. Continuing our survey south, we find the small Ili valley bounded in that direction by the lofty range of the Tien-shan or Celestial Mountains, which form an effectual water-parting between it and the Tarim valley—our next southern step.

These Celestial Mountains, the Tien-shan, which extend with their great height and steep flanks, like a wall, for nearly fifteen hundred miles from the Pamirs in the west to the Mongolian plateau in the east, attain their greatest height almost immediately to the south of the town of Kulja ; they are here crossed by the Musart pass leading down into the Tarim valley, close to, and to the east of, the Peak of Tengri, twenty-four thousand feet in height. This range of the Tien-shan is the prototype of the numerous minor folds which, taking their rise in the Tibetan plateau, traverse the peripheral region of China proper in a WSW. and ENE. direction ; all lofty, all with steep flanks, many with summits rising into the region of perpetual snow, and well named by the Chinese ' Walls ' or ' Azure Wall range,' from their wall-like aspect, confirmed in their long-drawn-out, continuous horizontal lines ; the difficulty of crossing them completing the analogy. The Chinese have, from time immemorial, possessed two roads, and two only, connecting them with the west, with Turkestan and Central Asia, known as the north and south roads. The north road, called ' Tien-shan-peh-lu,' i.e. the ' road north of the Tien range,' and the more easily traversed, leaves China proper by the province of Kansu, passes out by the town of Hami and thence down the Ili river valley, past Kulja, and so into the Turkestan plain and the regions to the east of the Aral Sea. The second road is the ' Tien-shan-nan-lu,' i.e. the ' road south of the Tien range,' leading through the basin of the Tarim, along the banks of which it passes: we leave this basin by crossing the Tien range to the north, but our path now turns southwards. As Kulja is, coming from China, the immediate objective of the Ili or north road, so Kashgar and Yarkand are the objective points of the Tarim or south road : continuing beyond Kashgar, this road leads across the high passes of the Pamirs to Bokhara, Khiva, and the Transcaspian. The Ili and Tarim rivers, along whose valleys respectively these two main roads pass, flow in parallel lines but in opposite directions, the Ili flowing west and finding its outlet in Lake Balkash in Russian territory ; the Tarim flowing east until it is lost in the sands and swamps of Lob-nor, a lake situated near the eastern edge of the Tarim basin whose drainage it receives, and at the foot of the lofty Altyn range,

which walls in the basin on the south. This and the Kwenlun range, its western extension, form the northern buttresses of the great Tibetan plateau, up on to which our rough delineation of the Chinese frontier now carries us in our southward progress. Thus, crossing Tibet, we descend—in the west, through the Himalayas to Kashmir, Nepaul, and British India; and in the east, to Assam and Burma, which country is coterminous with the western frontier of the Chinese province of Yunnan in China proper. A third road, now little used, is described in Chapter XII; this leads along the south edge of the Tarim sand-waste, at the foot of the Kwenlun mountains.

Along the greater portion of its land frontier the Chinese Empire is bounded by that of Russia: in the east by the maritime province of Primorsk, better known by the name of its capital, Vladivostock, and which was annexed by Mouravieff from China as recently as 1860: in the extreme north-east, by the Amur region to the north of Manchuria: in the north by the Trans-Baikal to the north of Mongolia, then by the 'government' of Irkutsk, on the opposite or western shore of Lake Baikal: on the north-west and west by the Russian 'governments' of Tomsk and Semipalatinsk, which latter divides the depression of Lake Balkash with the recently annexed government of Semirechinsk: then, in the extreme west by the Pamirs, the lofty nexus of the Asiatic continent, the area of which is now, according to the recent delimitations, shared between the three great empires of China, Russia, and Great Britain. Coming round to the south-west frontier, across the wall of the Himalayas and their offshoots, the Chinese Empire has British India for its boundary; and farther east, Burma up to the banks of the Mékong, where we meet the French possessions of Indo-China—Annam and Tongking,—and east of which again, and south of the Chinese provinces of Kwangsi and Kwangtung (Canton), the Pacific Ocean marks the boundary: from here on, following up the coast-line, east and north, for a distance of eighteen hundred miles, we arrive once more at our starting-point on the borders of the Korean peninsula.

Roughly, omitting inequalities in both coast- and land-lines, the circumference of the Chinese Empire may be taken as

8,000 miles, of which the Russian frontier of 3,600 miles forms about one-half; the British frontier of 1,800 miles, one-fourth; and the coast-line, another 1,800 miles, the remaining fourth. The other land frontiers, of less importance geographically, but possibly of greater politically, not included in this enumeration are:—the line of neutral ground bordering the Corean peninsula where it is attached to the Manchurian provinces of Kirin and Liaotung, and the northern boundary of Tongking to the south of the provinces of Yunnan and Kwangsi, each about 250 miles in length. China's object, ever since her final assimilation of the eighteen provinces proper in the sixteenth century of our era, has been to surround herself with dependent buffer states—an object most persistently pursued by the powerful early emperors of the present dynasty in the seventeenth and eighteenth centuries, and still spasmodically pursued by their feeble successors in the nineteenth. These buffer states, of no value financially, but practically impassable before the advent of railways, still cover more than double the area of China proper, although largely curtailed during the past century by the encroachments of Russia in the north and west, and in the south by those of France. The store that the present decrepit rulers of the empire still set by these barren dependencies is seen in the exertions put forth for the reconquest of Kashgaria and western Yunnan in the seventies, by the retrocession then obtained from Russia of a portion of the Ili basin, and by the not wholly unsuccessful war with France for the recovery of Tongking in the eighties. That the maritime frontier is still more open to attack is a lesson only recently learned by the Chinese, who have been disappointed in discovering that the ocean is no longer an impenetrable buffer of safety: indeed, the fact that the ocean is a highway and not a barrier—an open door rather than a 'moat defensive'—has only in modern times reached the status of an axiom in Europe.

Resuming our study of the geography of the 'Far East' outside of the limits of the Chinese Empire, we have in Siam a small kingdom embracing, in the north, a portion of the foothills of the Tibeto-Yunnan plateau, in which its principal river, the Menam, takes its rise, and by its delta, projected into the gulf of Siam, has produced the rich rice lands round Bangkok,

the capital, which form the mainstay of the Siamese kingdom and the chief support of its population and trade. Enclosed on the north and west by the frontiers of British Burma, from which it is divided—in the north by the river Salwin and for a long stretch south by the steep range to the east of Moulmein and Tenasserim : and again to the north and on the east by the French Annamese possessions, where, by the recent Anglo-French Convention, the river Mékong now forms the boundary on this side, less a neutral ground, practically French, on the western side of its valley—the kingdom of Siam is now restricted to the basin of its one river, the Menam, plus a long narrow prolongation south, past the isthmus of Kra, down into the Malay peninsula as far as the British possession of Penang. The southern boundary of the kingdom, otherwise, is formed to the west by the waters of the gulf of Siam, and to the east by the French-protected kingdom of Cambodia. The area thus enclosed, omitting the above-mentioned peninsular extension—which, sparsely populated by semi-independent Malay tribes, possesses no political importance—forms a rough square, with a circumference of about 1,500 miles. Measuring from Chantabun, on the Cambodian frontier, in the south, to the Laos states of Zimme and Chieng-hai in the north, the distance is about four hundred miles, with an east to west diameter averaging about three hundred. Siam, together with the mountain ridge of Annam to the east and the Mékong-formed delta of Lower Cochin-China to the south, forms a peninsula jutting into the China Sea and one of the main peripheral extensions of the great Tibetan Central Asiatic plateau. Incidentally we may note the connexion of Siam with China in the etymology of its name : Siam is only a dialectical variety of the Chinese word ‘Shan’—mountain,—the word Siamese, applied to the direct subjects of the king of Siam, and the word Shans, applied to the semi-independent tribes that people the mountains and jungles through which pass the ill-defined boundaries of China, Burma, Siam, and Annam, being practically identical. Although Shan means ‘mountain’ in Chinese, yet this meaning is not believed to apply to the name ‘Shan.’ The origin of the name is unknown, nor is it used by the people themselves ; the designation originates with the Burmese, who so denominated these

immigrants from across the Chinese border. The term 'Laos' would appear to denote the aboriginal inhabitants driven northwards by the Malay invaders from the south.

Crossing the Mékong eastwards we land in the third of our 'Far East' countries—Annam, or, as it should be spelt, after the analogy of its neighbour, Yunnan—'Annan'—the 'Peaceful South,' together with its northern extension, Tongking, the 'Eastern Capital,' the Chinese words being the same as those which in Japan spell 'Tokio.'

Annam, commonly known in Europe as 'Cochin-China,' was, until the French advanced their frontier to the Cis-Mékong, virtually confined to the narrow mountain range which walls in Siam and the Menam and Mékong valleys, both of which were originally comprised in the latter kingdom, from the Pacific Ocean. Annam is thus little more than a narrow strip of mountain land, not a hundred miles in width, but with a coast-line extending north and south of nearly eight hundred miles, with its capital and the sand-barred port, Hué, in its centre. This mountain ridge effectually shuts off the valley of the Mékong lying behind it from the sea, into which the great river eventually finds its outlet to the south of this barrier, where it has formed the rich rice delta of Lower Cochin China with Saigon for its capital. At its upper or northern end the range swerves to the west, inland, and so has left an opening through which a portion of the drainage of the Yunnan plateau is enabled to flow direct to the China Sea; and the water thus escaping has deposited in the north the correspondingly rich delta of the Red River of Tongking. Annam has thus, with its long impassable coast barrier of comparatively unproductive mountains, led to the establishment of two rich delta-countries upon its extremities. These two deltas, Tongking in the north, Cochin-China in the south, linked together by Annam in the centre, stand now all united in the French Empire of Indo-China, the area of the whole with the recent annexations being 360,000 square miles, or about double that of Siam, its neighbour on the west.

Corea, another of the whilom dependencies of China, but, since 1895, an independent 'empire,' comes next on our list. This, the Hermit Kingdom as it used to be called, lies between the Yellow Sea of China on the west and the Sea of Japan on the

east and distant from either country about one hundred miles to the nearest point of the opposite shores :—the province of Shantung in China and that of Kiushiu in Japan. But the Hermit Kingdom, though insular in character, owing to the wild and difficult roadless country through which alone it can be approached by land, is actually another of the Asiatic peripheral countries, the last on the circuit until, in the extreme north, is reached the peninsula of Kamschatka on the Behring Sea. Corea is attached to the main mass of the Asiatic continent by the isthmus of Phyengyang-Gensan (Port Lazareff), 100 miles in width, its northern boundary, where it joins on to the Chinese kingdom of Manchuria, to the south of the snowy range of the Chang-pei-shan—the ‘long white mountain’—in the north and east ; while its north-west frontier is defined by the Yalu river. This feeble little country, which has proved so great a bone of contention amongst her three big neighbours—Russia, China, and Japan—extends north and south about 550 miles, with a width varying from 100 to 150 miles, giving an area of 80,000 square miles. The country is mostly mountainous, the highest elevation being on its eastern border, where a ridge with an altitude of about 4,000 feet falls abruptly into the deep waters of the Pacific. On the opposite side of this ridge the country slopes more or less gradually westwards into the shoals and mud-flats that form the western coast-line along the Yellow Sea. As in the island of Formosa, 500 miles to the south, which is similarly constructed, the drainage is necessarily to the west and on the easier slope of the mountain backbone, whereon lies the main watershed : while, east of the water-parting, we have, in both cases, little more than a steep wall rising straight out of the ocean depths. Even on the western side, the rivers are short, steep, and rapid, and yield only shallow bar harbours to navigation. But Corea, unlike Formosa, possesses at least one fine harbour in her coast barrier—that of Port Lazareff in the north ; while the more gentle southern coast owns—facing Japan—the attractive ports of Masampo and Fusan.

Last in order, but to-day the greatest in importance, comes the island empire of Japan—a string of islands lying in the Pacific immediately to the east of the great Chinese Empire, and

aggregating, including the recently acquired island of Formosa and the Liuchiu archipelago, an area of 165,000 square miles—just one twenty-seventh of that of her mighty neighbour.

The island group that goes to make up the empire of Japan extends from Formosa, with its southern extremity dipping into the tropics, to Yezo, renamed Hokkaido, and the Kuriles reaching up to the foot of the Kamschatka peninsula in latitude 50° north—a 'string of pearls' fringing the main Asiatic continent in a south-west and north-east direction, now at last brought into the complete possession of the Mikado's empire,



FIG. 5.—The Empire of Japan.

from the Philippines in the south to the confines of Behring Sea in the north. The islands, over four thousand in number, form a continuous chain of mountain peaks, not improbably the surviving summits of an ancient continent now submerged. The chain throughout has been the scene of great volcanic energy, and still comprises active volcanoes which extend in an almost unbroken line yet farther north into the mainland in Kamschatka. The rivers are small and short, mostly falling in un-navigable rapids direct from the high central backbones of the islands into the sea—occasionally yielding small but rich rice deltas; more often embanked above the level of the narrow lowlands traversed by them in their downward course from the mountains behind. The agricultural wealth of the ground is small when compared with that of the vast plains and cultivable mountains of the mainland opposite, but the energy of the people, favoured by a less relaxing climate than is that of Middle

and South China, more than compensates the inhabitants for their inferiority in natural resources. China and Japan exhibit scenery of exceptionally picturesque outline and colouring, that of China being naturally on a more imposing scale; while Japan affords the more exquisite variety of detail.

The above is a general outline of the physical geography of China and of the buffer states still under her control: the once

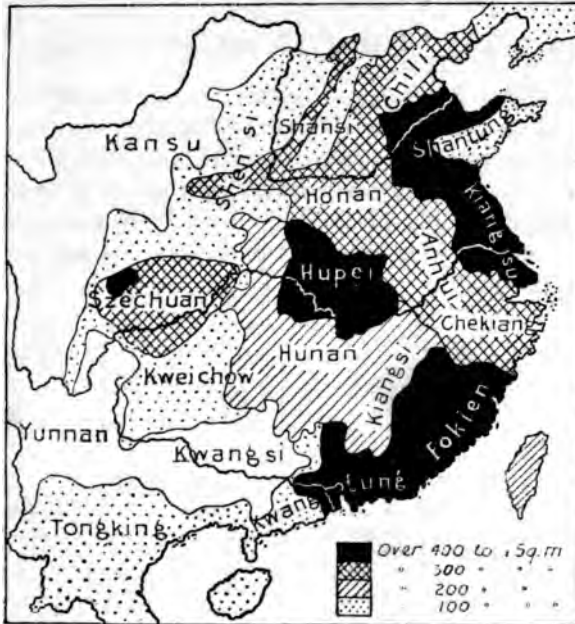


FIG. 6.—Population of China.

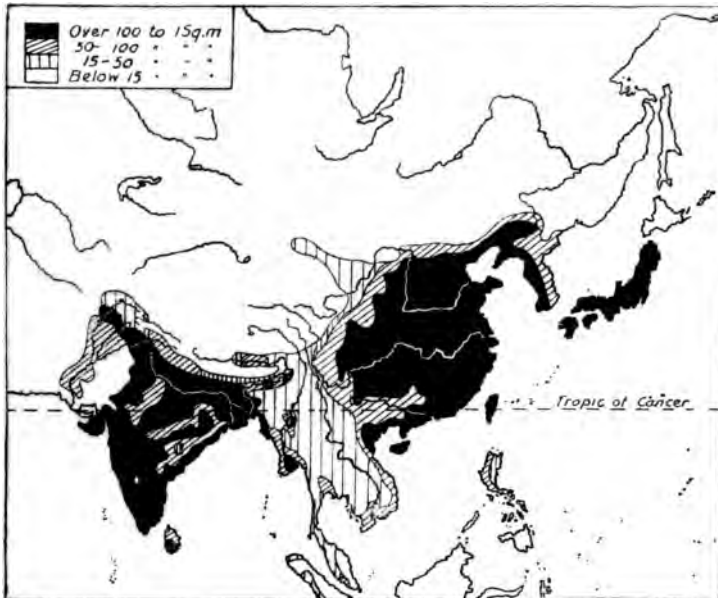


FIG. 7.—Population of Eastern Asia.

dependent tributary states of Burma, Siam, and Annam complete the circle; and these again, with the addition of the independent empires of Corea and Japan, but with the omission of Burma, now forming an integral portion of British India, complete our definition of the 'Far East.' It remains, in this chapter, to add a summary of the figures dealing with their political geography.

	Latitude N.	Longitude E.	Estimated area in square miles.	Estimated average level above sea.	Estimated population.	Density of population to square mile.
China proper :—	18 @ 42	97 @ 122	1,350,000	1,500 ft.	380,000,000	280
Yellow R. Valley	34 @ 41	95 @ 119	390,000	2,000 "	95,000,000	243
Yangtse R. Valley	25 @ 34	90 @ 122	570,000	1,500 "	190,000,000	333
West R. Valley	22 @ 25	106 @ 114	200,000	1,000 "	40,000,000	200
Chekiang and Fukien	24 @ 31	116 @ 122	76,000	1,500 "	33,000,000	421
Chihli and Kou-wai	37 @ 42	112 @ 118	104,000	1,000 "	22,000,000	163
Chinese Dependent States :—						
Mongolia	38 @ 53	82 @ 125	1,288,000	5,000 "	2,000,000	1½
Manchuria	39 @ 54	117 @ 135	362,000	1,000 "	18,000,000	50
Turkestan w. Dsungaria	37 @ 46	74 @ 93	580,000	3,000 "	1,000,000	2
Tibet	27 @ 38	79 @ 101	651,000	13,000 "	6,000,000	10
Chinese Protected States (formerly):—						
Corea	34 @ 42	125 @ 129	80,000	1,000 "	12,000,000	150
Nepaul	26 @ 30	80 @ 88	50,000	5,000 "	4,000,000	80
Burma, excluding Tenasserim and including Shan country	16 @ 28	92 @ 100	168,000	700 "	10,000,000	51
Siam, excluding strip in Malay peninsula	12 @ 20	97 @ 105	180,000	600 "	5,000,000	28
French Indo-China	9 @ 22	100 @ 109	360,000	1,500 "	17,000,000	47
Japan	21 @ 51	120 @ 151	162,000	2,000 "	45,000,000	280
COMPARISONS.						
Great Britain	50 @ 59	2 E. to 6 W.	88,000	300 "	40,000,000	455
British Empire	—	—	11,000,000	—	400,000,000	37
Russian Empire	38 @ 80	19 @ 145	8,660,000	200 "	130,000,000	15
Chinese Empire	22 @ 53	74 @ 125	4,200,000	3,000 "	420,000,000	100
United States, excluding Alaska	26 @ 49	73 @ 125 W.	3,000,000	500 "	75,000,000	25

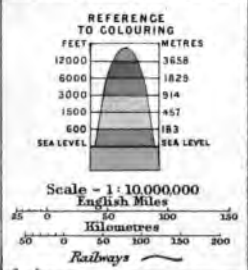
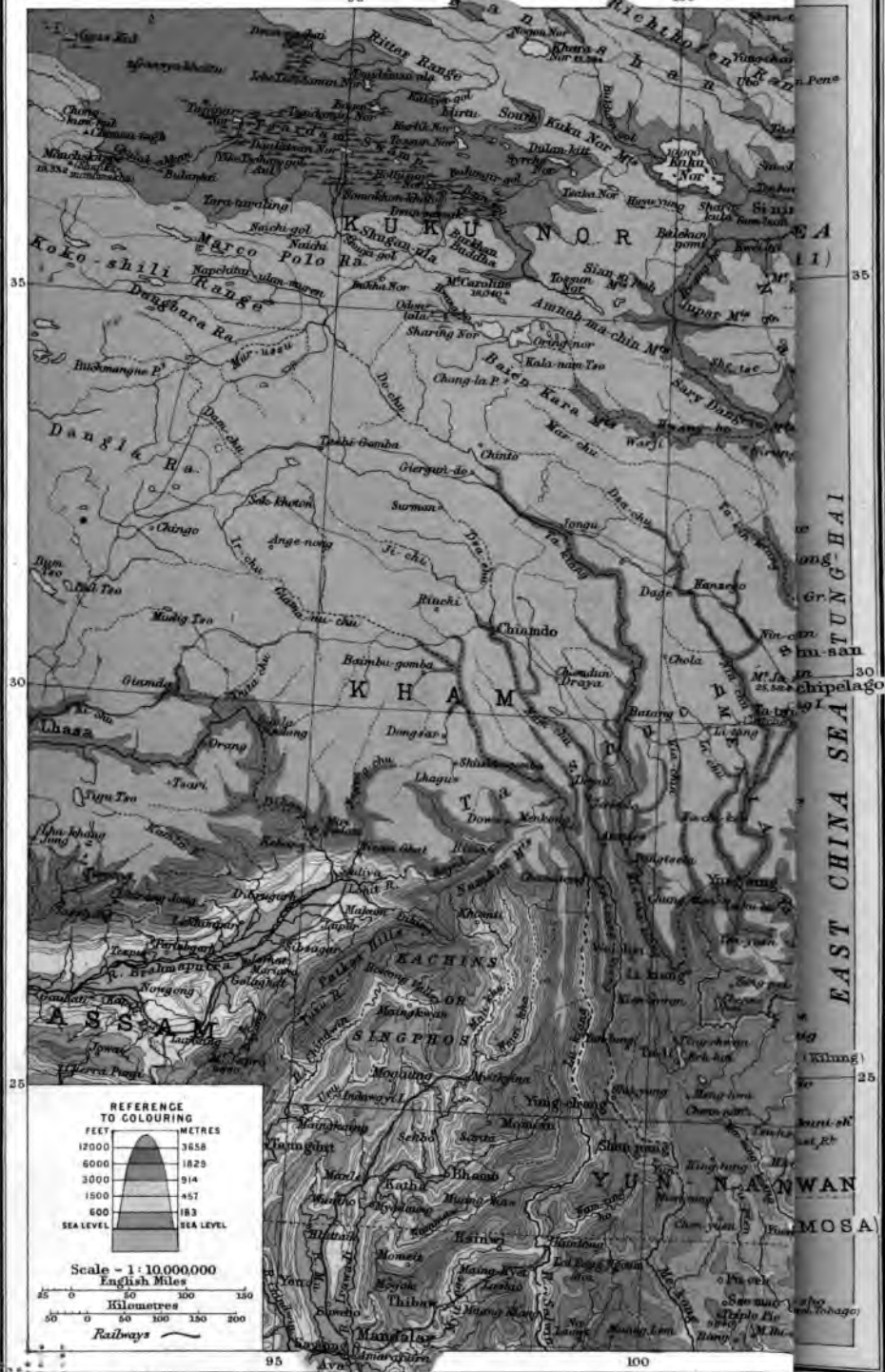
Average area of the 18 provinces composing China proper, 75,000 square miles.

Average area of the 48 states composing U.S.A. (excluding Alaska and District of Columbia), 62,000 square miles.

Average population of the 18 provinces of China, 21,000,000.

Average population of the 48 states of U.S.A., 1,570,000.

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CHAPTER III

THE NORTHERN BASIN. THE YELLOW RIVER.

FROM the general outline given in the preceding chapter, we will now turn our particular attention to the chief country of the series—the Central Kingdom of China proper. ‘Chung



FIG. 8.—South-east Asia. River Basins.

Kwo,' or the 'Central Kingdom,' is the name by which the Chinese people have designated their country from the days when their empire was confined to a few settlements along the banks of the Wei and Yellow rivers in the north. Surveying

the Central Kingdom as it exists in the eighteen provinces of to-day, we find it comprised in three river basins : that of the 'Ho' or Yellow River in the north, that of the 'Kiang' or Yangtse River in the centre, and that of the West River, the river of Canton—the branch that flows past the city being known as the Pearl River—in the south. The three great rivers that drain these basins all take their rise on the east side of the Tibetan plateau—for, even in the case of the West River, the province of Yunnan, whence it flows, is but an eastern prolongation of this same plateau—and pursue their courses, practically due east, in parallel valleys to the Pacific Ocean, and the northernmost of these three valley-basins formed the original home of Chinese civilization in China proper. The Chinese are the aboriginal inhabitants of China with a physical, mental and (lower) nervous organization all their own, and little more can be said about them. The historical period does not commence in China until the eighth century B.C., at which period the empire was held by the Chows: this dynasty goes back to the semi-historical period of its founder, Wu Wang, the 'Martial Prince,' who acceded to the Principality of Chow, as suzerain of the feudal kingdoms into which China was then divided, in the year 1122 B.C. The Martial Prince was descended from Wen Wang, the 'Literary Prince,' or—the title by which he was known in his lifetime—'The Chief of the West.' Father and son together put an end to the preceding cruel despotism of the Yin dynasty, and it is with this dynasty of Chow that authentic Chinese history first begins. All previous is purely traditional.

Yet tradition, as collated by the Chinese historians of the Han dynasty, seems to show that the superior order and civilization introduced by the Chows—notably by Chow Kung, younger brother of the Martial Prince—was derived from immigrant ancestors from the West, who entered China by the road of the Tarim. Whether these were an Aryan tribe from Bactria and the slopes of the Hindu-Kush, as some suppose, it is impossible to say. Still there is reason to believe that the aboriginal Chinese race, of whom the semi-independent Miaotse in Kweichow and elsewhere are a surviving remnant, did receive an infusion of culture from the



Map showing the route by which the 'Chou' advanced into China from Central Asia—down the valley of the Tarim, across the Gobi, and into the valleys of the Wei and Yellow Rivers.

West, such as the old stock of the English folk received from the Norman invaders of England. As with the latter, so in China, the invaders were gradually absorbed in the aboriginal race, which was the more numerous and persistent. Except in dress and language there is little to-day to distinguish the Miaotse from their Chinese neighbours. Their features are similar, of a like so-called Mongolian type, with small, delicately formed hands and feet, and the commonly occurrent small mouth with the 'Cupid's bow' upper lip, the black wiry hair and beardless face. The old Chinese type is extraordinarily persistent, and this is seen in the mixed offspring of Europeans and Chinese to-day, in which the Chinese type persists even to the quadron of the second generation. The immigrants, whom for want of better knowledge we may call the Chows, conquered the Chinese and taught them the arts they had brought from the West, but gradually lost their own individuality. In the same way the numerous 'Tartar' invaders, who gave North China an intermittent succession of 'Tartar' dynasties from the fifth century onwards, became equally absorbed by the Chinese. The resultant strong infusion of 'Tartar' blood is evidenced in the north, both in the language and in the superior physique and stature of the northerners. The southerners are of purer Chinese type, and this fact is confirmed in their language to-day, the so-called Cantonese dialect being undoubtedly a survival of the ancient language of the country. The Tarim valley, even in historical times, nourished a considerable population in comparison with its present scattered inhabitants, as is shown in the remains of ancient cities dating from the ninth to twelfth century of our era, unearthed in what is now the howling wilderness of the Takla-makan desert. Thence along the depression in which lie the modern cities of Sining and Lanchow, by a road leading through the present Chinese province of Kansu, their path to the Wei would lead the immigrants to the upper course of the Yellow River, but here only to cross it at right angles where it washes the walls of the present Kansu capital, Lanchow, and not to meet it again until, after traversing the whole extent of the valley of the Wei, they came to the point where the two rivers finally unite in the pass of Tungkwan: thence onward their course

lay continuously in the Yellow River valley until they reached the Yellow Sea. The Wei river, which has its source in Southern Kansu, about 250 miles to the west of its outlet into the Yellow River at Tungkwan in Shensi, flows past the capital, Si-an (Si-ngan), along the foot of the Pe-ling (i.e. Northern Range), the two forming one channel in a direct line from Kansu to the sea: for the Yellow River coming from the north after forming the eastern boundary of the Ordos desert meets the Wei at right angles, and in this, its great northern loop, is of little or no value to navigation, while the Wei and the Yellow River below this point together form a main artery of trade. The Pe-ling, with its eastern extension the Tsing-ling—itsself practically an eastern extension of the Kwenlun range—marks the water-parting between the Yellow River and the Yangtse basins, the sub-aerially formed loess lands of the northern and the sedimentary rocks and sub-aqueous deposits of the centre region. By this barrier, at a time when its mountains were closed by impenetrable forests, the Chows were withheld from penetrating southwards, while the open prairie land of the Shensi loess plateau invited them eastwards away from the more arid and, from its greater elevation, chilly region of Kansu. Thence later, leaving the mountainous region of the present province of Shansi on their left hand, they continued their eastern advance down the Yellow River into the plains of Honan, until turning north they found these again merged in the old marine estuary now known as the great plain of Chihli: crossing these plains and extending their march eastwards, they reached the hilly region of modern Shantung, the detached mountain peninsula that juts out into the Yellow Sea between two wide alluvial plains on either side—that of Chihli on the north, and that of the 'Hwai' region, the modern North Kiangsu, or, as it is commonly called, 'Kiang-peh,' 'North of the Kiang,' on the south. Passing from the swamps of the ever-changing Yellow River, which, after it leaves the neighbourhood of Kaifeng, the capital of the Honan province, has, in historical times, constantly fluctuated in its course thence to the sea,—finding its outlet at times to the north, at times to the south of the Shantung promontory, and in its wanderings leaving behind it wide areas of swamps and shallow lakes and ill-defined creeks,—

they advanced until they reached the highlands of modern Shantung. Here they found a country of gentle uplands (stretching away from the central nexus of the famous Tai-shan—the ‘exalted’ mountain—though barely exceeding 5,000 feet in height) and fertile valleys and a more bracing and sea-tempered air; in short, more equable and temperate climatic conditions than any they had yet experienced, and forming a strong and pleasing contrast to the violent extremes of heat and cold that distinguish the implacable regions of Central Asia—their original home. To these favouring conditions we may well attribute the fact that here in the hills of Shantung the peculiar civilization of the Chinese attained its highest development, and produced, in the seventh and sixth centuries before our era, a school of philosophers worthy to rank with their contemporaries in the West—in India and in Greece. It seems a marvellous coincidence that three advanced schools of elevated human thought should have thus arisen at the same period in three distinct centres totally independent of each other; schools which fixed the type of the three great civilizations of the world—the Chinese, the Indian, and the Greek, this latter the foundation upon which rests the modern civilization of Europe and the West.

If we adopt the Yellow River valley as the type and definition of North China, as is the Yangtse valley that of the centre of the ‘Central Kingdom’ as it now stands, it will be found to comprise just six of the eighteen provinces of China proper—Kansu, Shensi, Shansi, Chihli, Honan, and Shantung. These six provinces are distinct from the rest of China in their climate, food production, and in the character and mode of life of their inhabitants. North of the dividing range rice cultivation ceases, and although imported rice is here still the favourite diet of the rich, the masses live on wheat and millet¹, chiefly the latter. These Northern Chinese, though a slow-moving, are a sturdy race and, while essentially of the same type, present a great contrast in physique to their effeminate neighbours to the south of the line. The configuration of North China with its

¹ Shu-tse, commonly called ‘Siao-mi’ (small rice), the glutinous millet, a variety of *Panicum miliaceum*, as distinguished from Kao-liang (*Sorghum vulgare*), the tall millet, used for distilling spirits.

unique development of the great loess deposit that forms the characteristic surface of this region, has been exhaustively described by Richthofen in his monumental work, *China*. He there tells how the original mountain outline of the country has been obliterated by enormous sub-aerial deposits of dust, swept across by the winds blowing eastwards from the sandy steppes of Central Asia. This dust has, in the course of ages, filled up the valleys, smoothed over the original rugged mountain formation, and deposited upon it a fertile loam many thousand feet in thickness. The fertility of this loam Richthofen attributes to the secular decay of the grasses with which the land was covered and which arrested the dust as it swept over them. As one crop of grass was buried and decayed, so another crop sprang up on the new surface, the procedure being so uniform and gradual that there is little trace of horizontal stratification, but marked vertical cleavage, due to the perpendicularity of this vegetable growth. The minute vertical hollows left by the decayed grasses have furnished a porosity to the loam deposit which has given opportunity for capillary attraction to draw moisture to the surface, together with a perennial supply of the salts necessary to agriculture, from the depths below. Richthofen goes into long arguments, one of the chief being the constant presence of land snail-shells and the entire absence of marine fossils, to prove the land origin of the formation; and his proofs, at first ardently combated by the older school of geologists¹, have now met with general acceptance. This loess

¹ It may be well to state the reasons for a contrary opinion, although I do not share it myself. Mr. Kingsmill writes: 'Richthofen's theory of the loess is untenable by a geologist who knows the country: it is apparent that the fertility of the loess is due to its containing a small amount of phosphates. The best wheat in China is grown on the impalpable *sand* spread by the inundations of the Yellow River over the districts overrun in the floods after the breach of 1854. The vertical tubes in the loess I have always found pentagonal, a form not appertaining to vegetation.

'So far from the chief external geological features of China being carved out of tertiary strata, the enormous antiquity of the superficial geology has often struck me. The surface of China was in pre-tertiary, or at least eocene times, carved out into the same main features as at present. The mountain ranges and the valleys were the same as to-day; the water system, except in a few localities, very similar. The mountains were however higher and probably more rugged, and the valleys more abrupt. Some ages then, up to the waning days of the tertiaries, China was under water, and the surface sandstones, Laterites, gravels, AND LOESS were laid down in the valleys

formation, to the eye a level plain with low rugged ridges and peaks rising out of it, somewhat as the 'Nunataks' rise out of the vast snow nevés of the Arctic regions, is, as Richthofen points out, in reality a succession of basins, depressed in the centre and rising thence imperceptibly to the edges where the loess ascends the flanks of the steep, rocky mountain ranges which form the rims of these wide-spread valleys. Each of these valley-plains constitutes, as a rule, one of the 'Hien' or counties, into which the province is divided, and in whose centre we find usually the fortress-capital of the county, the 'Hien' city. Of these Shensi, with an area of 81,000 square miles, contains seventy-three, and Shansi, with an area of 66,000 square miles, eighty-six; grouped respectively under seven and nine prefectures or 'Fu.'

The rivers, and notably the Yellow River, that drain this unique loess region are unable to rest on its loose yet compact surface: hence they have cut down through it to the rock foundation below, and have left on either hand the vertical cliffs by which their banks are lined. The roads, or rather cart-tracks, in this region have produced a like effect on its surface. According to the varying compactness of the loess in different places and to the amount of the traffic over it, we find that, in the course of centuries, the roads, like the rivers, have cut out ravines with vertical walls of varying depth, their floors rising and falling and their courses winding through the country in bewildering perplexity. Along these roads, and out of their vertical walls, the inhabitants have excavated their dwellings, —originally simple caves in the loess, now developed into houses of two and three stories with wooden doors, window frames, and inside staircases—houses warm in winter and cool in summer

at the expense of the mountain chains. Then, at the dawn of the human epoch, the ocean waters retreated and the rivers of to-day commenced to flow. For the most part they followed the old drainage lines, but here and there were deflected by outbursts of basaltic lava which continued to flow till late in the Pleistocene. The beds of the modern rivers were for the most part formed in the low-lying tertiaries, which, however, they have in a few places cut into deeply. In the higher valleys the gradual erosion of the tertiary rocks proceeds at a greater rate, but everywhere the tendency is to pause when the old bed rock is reached, so that the rivers of to-day flow in the old channels occupied by their predecessors in cretaceous or eocene times.'

and marvellously free from damp. When travelling in the country and at a distance from the few large towns in the region, the view over the surface of the loess plain shows an unlimited extent of flat cultivated land, unfenced, houseless, and to the eye, except when agricultural work is actually in progress, uninhabited. This desolate-looking country is, however, split up by cracks and crevices ramifying through it in all directions, and at the bottom of these crevices, invisible to an observer on the surface, lie the paths of the roads and the rivers intersecting it—the life and movement of the region. The loess country, fertile as it is, being incapable of irrigation by manual labour, is dependent upon the rainfall for its fertility, and of late years unhappily this prime necessity has made default. Central Asian conditions, determined, it is now believed, by the denudation of the mountains, due to the remorseless destruction of the forests by successive generations of inhabitants, appear now to be invading Northern and Western China. Shensi, once the granary of the empire, has, in recent times, rivalled India in its disastrous famines, and the whole region north of the ‘River’ has been suffering from insufficient rainfall. Even Szechuan on the other side of the water-parting—cloudy Szechuan, where the sun shines so rarely that the dogs bark when it appears—is no longer immune from this curse of big continents: indeed, of late years complaints of drought have come in from all the eighteen provinces, with the exception only of the tropical province of Canton.

The province of Shensi, the second on our list, was said, previous to the recent three years’ drought (1898 to 1900), to maintain a population of eight millions upon its surface of 81,000 square miles: the major portion being distributed along the fertile valley of the Wei, in which stands the capital Si-an, and again to the south of the Tsing-ling range, in the valley of the Upper Han. This rich valley, in whose centre stands the important prefectural city of Hanchung, has for its southern frontier the crest of the Tapa-shan, which likewise forms the water-parting between Shensi and Szechuan to the south. A journey two hundred miles north of this range brings us to the northern boundary of the province, the ‘Wan-li-cheng’ or ‘Great Wall,’ which cuts the province off from the

Ordos territory of Mongolia and the great bend of the Yellow River where this latter makes its excursion into the Mongolian desert, and whence it returns to form the eastern boundary of the province as it flows in a due south direction, having on its left bank the neighbouring province of Shansi. Si-an, the capital of the province, situated to the south of the Wei river in a fertile plain at the foot of the lofty Tsing-ling, is famed, under its ancient name of Chang-an, as having been the metropolis of the empire under two dynasties. From B.C. 206 to A.D. 220, Chang-an was the capital seat of the glorious dynasty of Han, and once more, from A.D. 581 to 618, of the short-lived dynasty of Sui. When, in A.D. 220, the dynasty of Wei succeeded in North China to that of the Han, it made its seat in the more ancient capital of the 'Chou' dynasty (B.C. 1122-249) in Lo-yang, sixty miles farther east and just across the Honan border. Upon the destruction of the Han dynasty and their capital Si-an, a surviving scion of the house, Liu-pei, escaped across the Tsing-ling into Szechuan and there founded the contemporary dynasty known as the 'Shu Han,' with his capital at Chengtu until, after a lapse of forty-five years of anarchy, China was once more united under one dynasty, the Chin. These latter restored the capital to Lo-yang. Si-an, as we know, was made the capital by the present Empress Dowager in the winter of 1900-1, before her return to Peking in the spring of the latter year: the city is also noted as the site of the famous Nestorian tablet, an Imperial Edict according toleration to the Nestorian missionaries as far back as A.D. 781 under the dynasty of Tang. The southern region of Shensi—the smiling valley of the Han, with its chief city Hanchung—was ravaged by the Taiping rebels during their northward advance in 1857, but Si-an was saved by the interposition of the rugged Tsing-ling, which the Taipings never succeeded in crossing: living, as they did, on the countries they ravaged, they were ever stopped in their marches when confronted with unfertile mountains. Si-an is said to have been first founded by Wu Wang, the 'Martial Prince,' who overthrew the vicious last ruler of the 'Chang' dynasty, B.C. 1122. Its old name of Chang-an, or 'Continuous peace,' may be said to have justified its existence from that time on until the destruction of the Han dynasty in A.D. 220. Of late years Shensi has

been the scene of terrible Mahometan risings, a succession of rebellions and their suppressions having devastated the province, in the seventies, up to the walls of Si-an. These walls saved Si-an, but in the siege the inhabitants were reduced to selling human flesh in the streets, and recent travellers describe the city as presenting scarcely a trace of its former prosperity. So it is, alas! with half the cities of China at the present day. The climate of Shensi is dry and salubrious, and milder and more equable than that of its neighbour, Shansi: the fertile loess which covers the greater portion of its northern area is entirely dependent on the rainfall for its fertility; this rainfall is very precarious, and of late Shensi has reaped a full harvest only once in three years, although in ancient times it was the reputed granary of the empire. The principal crops are barley, millet, sorghum, and maize; cotton, hemp, tobacco (a mild quality much esteemed by smokers of the hubble-bubble and exported to distant provinces), the ground-nut, and the opium poppy are also largely cultivated: rice is not grown north of the Tsing-ling range. Shensi being, after Kansu, the province most difficult of access of any in the empire, its people, as might be expected, are extremely ignorant and conservative, while proud of their ancient traditions as the earliest known seat and *Ursprung* of Chinese culture and of the Chinese race generally. The main interest of the region to-day is in its unique example of sub-aerial loess, which has been so minutely described in Richthofen's great work.

While the largely arid and thinly populated province of Kansu—which, though containing an area of 260,000 square miles with ninety-six counties grouped under twenty-one prefectures, has only eight million of inhabitants—is little more to the Chinese than a fortified road to the 'New Dominion,' as their possessions in Eastern Turkestan are now styled; and Shensi, the next province going eastward, is, as we have seen, a region of late years impoverished by famine; we have in Shansi, the third and next province on our list, a country more ruggedly mountainous, though still interspersed with rich loess valleys. On the northern edge of the richest and widest of these loess valleys, and in the centre of the province, stands its famous capital city, Taiyuen.

This province of Shansi, with its eleven million inhabitants to 66,000 square miles of territory, may be said to be virtually composed of the broken mountains, running south-west and north-east, which form the buttresses of the Mongolian plateau where it falls into the plain of Chihli, and from which, viewed from the plain, they appear to rise abruptly as a wall fencing in the metropolitan province from incursions of man and nature on its north-west frontier. These mountains shelter the warm plains of Chihli from the bitter north-west gales and provide it with perennial irrigation by their streams. These north-west gales are a feature throughout the northern and coast provinces of China, bringing, as they do, the Central Asian climate with its terrible extremes of heat and cold, for the time being—usually a three days' spell—down to the Pacific. The wind is laden with fine sand, which, in the strong spring gales, is carried far out to sea, darkening the air and impeding navigation. I have myself travelled in a steamer compelled by a storm of impalpable dust to anchor in the Inland Sea of Japan, 500 miles distant from the coast of China, as though fog-bound. This was in the month of April. In winter these gales bring severe frosts as far south as Shanghai, latitude 31° , where, in an exceptionally severe winter, I have seen the swift tidal Hwang-pu river frozen out several yards from the shore. In the northern provinces the rivers are frozen to a thickness of one to two feet, the ice being full of sand, and this in latitude 39° , concurrently with warm sunshine: in summer these west winds blow equally from a cloudless sky and produce a corresponding extreme of heat. The fertile interior valleys of the province of Shansi need only a regular rainfall to ensure the production of ample crops: unfortunately the reckless deforestation of the once thickly wooded mountains has sterilized the rich valleys; the rains fall, but are immediately carried off with an impetuous rush to inundate the plains of Chihli in the summer monsoon season, leaving behind dried-up water-courses during the remainder of the year. But no recklessness of man has been able to interfere with nature's gifts of mineral wealth to this fine province. The coal and iron of Shansi are not only found side by side as in the flourishing manufacturing regions of Britain and North America, but their quality has been famous from

ancient times, and, although only worked by Chinese primitive hand methods, the iron competes in price with the cheaply-smelted, machine-forged ironware of the West, for which there is here no market. Nothing but the want of roads and civilized means of intercommunication prevents the development of the mineral resources of Shansi, and competition in the world's markets with the iron of Britain and America. Shansi is, in short, a second Pennsylvania : its vast coal measures spread

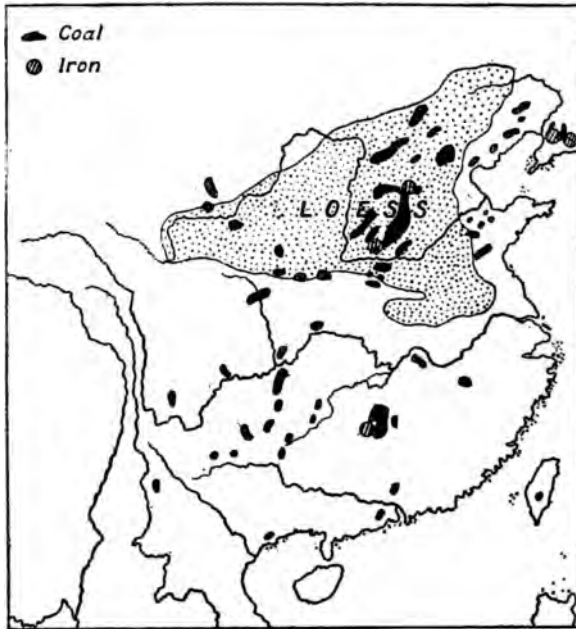


FIG. 9.—Coal and Iron in China.

over twenty-five degrees of the meridian—from the western deserts right across the province and thence round, in the extension of its mountains to the north of the Chihli plain, to the sea-coast, and again rounding the Chihli Gulf into Manchuria. These coal and iron strata are said to belong to the old carboniferous formations ; the deposits are inexhaustible ; the coal-seams reach as much as forty feet in thickness, and lie mostly undisturbed and are easily worked, resting as they do on a

horizontal limestone foundation and at an altitude of some three thousand feet above sea-level: hence the coal and iron of Shansi are in a position to be forwarded for consumption in the populous wood-bare plains to the south and east, and to the coast for export, almost by means of their own gravity, as soon as the needful railroads are constructed. The rivers, dry in winter and torrents in summer, are, although utilized to their utmost capacity by the all-patient Chinese boatmen, worthless for heavy traffic. Shansi is drained north and south by the classical Fên-ho, which empties into the Yellow River at a point in its Great North Bend below the gorge of Lungmen—the Dragon Gate—and about one hundred miles above the junction of the latter river with the Wei: it traverses the great Taiyuen loess-plain and washes the walls of the two important prefectural cities of Fênchow and Pingyang. The mountains of Shansi culminate in the famous range of the Wu-tai-shan, the 'Five Peaks,' the oldest worshipped of the nine sacred mountains of the empire: this range stands to the north of the capital, Taiyuen-fu, and immediately to the south of the Great Wall of China that protects the province, and farther east, Peking, on its Mongolian border. Two other notable rivers in Shansi take their rise in this range; these are the Hu-to river and the Hun-ho, which, after cutting their way down through the boundary ridge of the 'western hills,' whose crest forms the dividing line between Shansi and Chihli, and along which runs a two hundred miles long inner and southern projection of the Great Wall—a rampart erected specially to guard the fat Chihli plains from incursions from the Shansi mountaineers—enter the sea at Taku. After leaving the mountains, the Hu-to flows east past the important Chihli city of Chengting, whence it doubles back north to fall into the Pei-ho, immediately above Tientsin. The Hun-ho coming from the north-west has a longer course: it enters the plain immediately west of Peking, and after traversing the bridge—'twenty-four arches, all of very fine marble, well built and firmly founded' (Marco Polo, ch. xxxv), and as I saw it this year 1903—also joins the Pei-ho (North river) just above Tientsin. The inhabitants of Shansi are a sturdy mountain folk, well liked by the Europeans settled among them; but their province obtained an evil notoriety in the great upheaval

of 1900 by the terrible massacres of missionaries that took place in its capital, although the initiative was due to reactionary officials headed by an exceptionally brutal Manchu governor, the notorious Yu-hien, who has since been executed under foreign pressure. There is no doubt a strong fanaticism latent in the people, due primarily to their ignorance of the outside world, but also to the strong militant Buddhist influence in their midst, stimulated moreover by the existence of the sacred Wu-tai mountain, whose soaring peaks, rising to a height of 10,000 to 12,000 feet, attract crowds of pilgrims to their shrines, rendered supremely holy by their being also the home of a Gajen or living Buddha. The Buddhist monks feel themselves attacked in their main strongholds, and, while droughts and famines are attributed to the neglect of their altars and to the contumely cast upon their local protecting deities, the people will not yield to Christianity without farther struggles, the more so as they see the new converts—the Catholics more especially—sheltered under the aegis of extra-territoriality, and so often able to ride roughshod over their 'pagan' neighbours with impunity. However, Shansi, with its vast mineral resources, is now destined to be the field of large 'foreign' engineering enterprises, which, judiciously pursued, will have a calming effect by affording profitable employment to numbers of the impoverished population.

The province of Shansi ('west of the mountains'), with an area of 66,000 square miles, little more than that of England and Wales, possesses barely one-third of the population of the latter. Though the soil of the loess-filled valleys which intersect the mountain ranges that cover the greater portion of the province is extremely rich in the constituents of vegetable growth, and only needs a moderate rainfall to produce the abundant crops of the latitude, chiefly barley, wheat, and millet, with fruits of excellent quality such as persimmons, pears, dates, and grapes, yet a large portion of its area is high plateau, desolated by Central Asian dust-storms, incapable of irrigation and supporting a population ever on the verge of famine. When rain does fall, it runs off the deforested slopes like water off the roof of a house, in deep gullies which are dry again as soon as the storm is over. The lower plateau of Shansi rises

from the plain of Honan on its northern border to a height of 3,000 feet, and is composed of the coal formation which underlies the limestones of the precipitous hills that bound the plain, and which has made the province famous. The Ho range divides this plateau again from the Taiyuen plain and the valley of the Fên: the rocks are here granitic and (so Richthofen tells us) divide the coal measures, anthracite lying on its eastern side and bituminous coal on the west. The high plateau north of Taiyuen rises to 6,000 feet: both plateaux are covered with the loess deposit and are furrowed by very deep gullies which have facilitated the opening of adits, on the native method, into the widely spread coal and iron deposits in the rocks below. A curiosity of the province is a shallow lake in its south-eastern corner, eighteen miles long by three broad, surrounded by a high wall. It adjoins the town of Lungchuen, whose 80,000 inhabitants derive their subsistence from it. The lake is salt nearly to saturation, and its waters are evaporated under government direction and form a valuable constituent in the takings of the salt gabelle.

The next province, and the fourth on our list, is the metropolitan province of Chihli, 'Direct Rule,' which is situated immediately east of Shansi and between that province and the sea. Chihli, barring the plainward slopes of the mountains that hem it in on the west and north—and along the crest of which the natural boundary of the province is marked out—is a sandy plain, superficially alluvial, laid down in a shallow sea, what time the waters of the Chihli Gulf extended inland to the foot of the Shansi uplands. This onetime arm of the Yellow Sea, that once covered the present plain and washed the feet of the Shansi mountains, made an island of the highlands of Shantung, until the surrounding gulf became gradually converted into dry land by the detritus deposited in it by the streams descending from the continental uplands in the west. The land thus formed is now known as the great plain of Chihli, and is chiefly famous from the building, near its northern limit, of the celebrated metropolis of the Chinese Empire—Peking—the 'Northern Capital.' Peking city is a parallelogram of flat sandy land, cut four-square to the points of the compass, enclosed by high walls of brick, those surrounding the Tartar city being sixty

feet in height and forty feet in thickness, the total enclosed area measuring about five and a quarter miles north by south by four miles east by west. The population, prior to the Boxer destruction of 1900, was estimated at about 500,000 ; it is now probably not half that number. Peking is a comparatively modern capital, originally founded by the 'Liao' rulers of Manchuria and Northern Chihli in A.D. 920 and then called Yen-ching. The 'Liao' were ousted by the 'Kin' Tartars or 'Golden Horde' in 1115, and these occupied the site of Peking under the name of Chung-tu, the 'central capital,' from A.D. 1115 to 1234, the native Chinese dynasty of Sung having been meanwhile driven south, until they were compelled to accept the river Yangtse for the northern limit of their empire. The 'Kin' then gave place to the conquering Mongols, who made it their capital under the name of Shun-tien-fu, the 'City obedient to Heaven,' which name still exists in the official title of the prefecture in which the modern city of Peking stands. Its Mongol name, as Marco Polo tells us, was Kambalu (Khanbalig), the 'City of the Khan'—the great administrative ruler Kublai Khan, ever memorable as the constructor of the Grand Canal. On the driving out of the Mongols in 1341 the Ming made Nanking their capital, until, summoned north by renewed Tartar irruptions, in 1368 they removed to Peking, which has remained the capital ever since, for a period of 535 years without interruption. Peking, with its broad streets and vast open spaces, presents a marked contrast to the cities of the south. It is more Central Asian than Chinese in character : its unpaved streets are thronged by files of the majestic double-humped Mongolian camel bringing coal, wool, and other produce into the city, while passenger locomotion is carried on in the springless Peking mule-carts. Advantage was taken of the 'foreign' occupation of the city in 1901 to bring the railways from Tientsin, connecting with Siberia and Europe, and from Paoting-fu, connecting with South China, across the Chinese city and so up to the walls of the hitherto sacred Tartar city, the necessary breaches in the walls having been made without imperial consent, but to the great boon of the population. To reach the old stations outside the walls a journey through five miles of dust in the dry, and of morass during the rainy season, was formerly needed.

The wide plain of Chihli is formed principally of marine sands and gravels mostly covered by alluvial detritus deposited by the Hun-ho, the 'muddy river,' and numerous other small rivers having their sources in the Shansi mountains and in the ranges buttressing the high Mongolian plateau on the north. The great Yellow River itself, whose northern arm formerly entered the sea on the site of the present city of Tientsin, has also contributed its share : detritus washed down from regions a thousand miles and more to the west, and of which the fertile loess, here relegated to the position of a sub-aqueous deposit, is a main ingredient. This plain, which continues steadily to encroach upon the shallow Chihli Gulf, extends from the old Honan city of Changteh in the south to Peking in the north, a distance of 120 miles north by south and averaging sixty east and west, and supports the dense population characteristic of lowlands everywhere¹. This population has overflowed the mountain barrier that walls in the province of Chihli to the north, passed the Great Wall and invaded Mongolia. The Tartar hordes that kept China in a ferment during two millennia, and whose irruptions necessitated the removal of the capital to the extreme north, have ceased to trouble : their invasions are now returned by swarms of peaceful agriculturists who are rapidly converting the nomads' pastures into productive farm-lands. These agricultural settlements now extend northwards beyond Kalgan almost to the shores of the salt lake Dalai-nor, Kalgan itself being an important trading *dépôt* situated on the crest of the plateau, at the summit of the Nankou Pass, 4,000 feet above the plain and about forty miles to the north of Peking. The plain is subject to inundations, and a large part, especially to the south and along the Shantung border, is traversed by a network of shallow rivers with ill-defined banks, forming extensive marshes and swamps. The rains in this region do not set in until the late summer, as the south-west monsoon forces its way north. It was owing to neglect of this phenomenon that the Taiping

¹ Looking at a map one might imagine that the great plain of China—from the Hangchow bay to the Mongolian border—is a homogeneous delta product ; whereas the true alluvial deposit, commencing south of the old embouchure of the Yangtse in the Hangchow bay, only extends north to the border of the Shantung highlands, where the paddy-fields cease. North and west of these is a recent marine basin, only thinly covered with fertile loam.

rebels lost the result of their bold advance on the capital in 1856. With true Chinese insouciance, after their long procession of victories culminating in the capture of Nanking (the 'southern capital') in 1854, they set out with 300,000 men from Nanking in June, marched 300 miles across Kiangsu and Shantung carrying all before them until, entangled in these unending swamps, and depending as they did on the country for supplies, and constantly harassed by the brave local militia of the north, they were unable to extricate themselves from the maze of marshes and streams, and so perished miserably. An exceptionally wet season once more came to the rescue of the long-threatened effete Manchu dynasty. These floods often continue until the December frosts set in, and do not disappear until the following dry spring season enables the husbandmen to get in their crops. The soil, though light and powdery and, in the long dry season, covered with saline incrustations and watered from never-failing wells, is by no means unfertile,—even the wide salt marshes that line the sea-coast being rendered fairly productive by the aid of the manure which the dense population produces for its needs. The population of Chihli is generally estimated at 20,000,000, of which two-thirds are found in one-third of the area,—the plain just described, and which measures about 20,000 square miles. The remaining two-thirds of the total area of 57,000 square miles comprises the mountains to the west and north, and the cultivated portion of Mongolia recently added to the official limits of the province. The inhabitants of Chihli are the most robust in China, due largely to the predominance of Tartar blood in their veins, in their height and build contrasting strongly with the smaller-limbed, more effeminate Chinese of the south. The inhabitants dwelling to the north of the water-parting of the Yellow River and Yangtse valleys doubtless owe their markedly superior physique to their stimulating, cool climate, and their dry-grain diet of millet-porridge and wheat. They are less quick-witted but, as the Chinese say, more 'solid' (in the sense of the German word). In personal bravery they compare equally favourably, as was shown in the fighting of 1900. The testimony of many actors in that drama goes to show that in physical courage the peasantry of Chihli could give points to *some* of the European troops

opposed to them. Notably was this shown to be the case in the sanguinary contests for the possession of Tientsin in June of that year. Had the Chinese leaders been as good in their training as the men in theirs, the result would have been reversed: as it was, the superior leading and organization of its foreign defenders barely succeeded in saving the European settlement at Tientsin from capture and extermination. Tientsin was the key of the situation—as both sides felt—and had it fallen nothing could have saved Peking at the time, nor indeed the remainder of the foreign settlements scattered throughout the empire. At the mouth of the Pei-ho, forty miles below Tientsin, stands the hamlet of Taku, famous for its forts which once succeeded in repulsing a British fleet—that of Admiral Hope in 1859—and which have since succumbed to two attacks, those of the Anglo-French expedition in 1860 and of the fleets of eight allied Powers in 1900. It is also famous as the site of the first interview held between Chinese and British plenipotentiaries, who met on this spot in the year 1840.

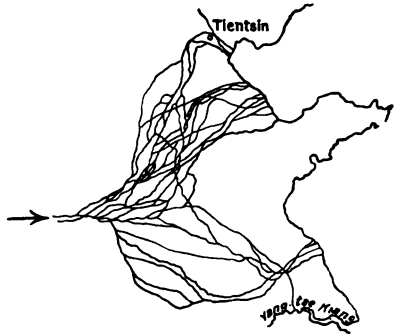


FIG. 10.—Changes in the course of the Yellow River.

The alluvial plain of Chihli is now fast advancing upon the shallow gulf named from it: the land now slopes so gradually into the sea that it is difficult to define the shore-line. Vessels bound up the Pei-ho to Tientsin have often to lie out as much as five miles from the coast town of Taku at the mouth, while waiting for a change of wind to allow more water to enter the river. In the year 1900, when assembled for the relief of Peking, the men-of-war and transports had to lie out in the Chihli Gulf as far as nine miles off shore, the depth of water at this distance being only twenty-eight feet at low water; and so low is the land that it is invisible from the anchorage. The Yellow River, which again discharges its muddy waters north of the Shantung promontory instead of, as it did prior to 1854,

into the Yellow Sea, is now the main contributor to this rapid silting up of the gulf. The climate of North China and of Manchuria is healthy and temperate, not unlike that of Central Europe, the mean temperature being about the same, although the extremes of heat and cold are greater than any found in Europe outside of Russia, and the air, except during the short rainy season, is markedly drier. But to the inhabitants of the lofty, wind-swept Mongolian plateau, the fertile and comparatively sheltered plains of Chihli are a terrestrial paradise, and hence the peaceful agricultural Chinese have been their constant prey: the long annals of Chinese history recording one Tartar dynasty after another seated on the 'Dragon Throne,' and ruling the northern provinces—the ancient Chinese patrimony; while one dynasty, the Mongol, under Genghis and his successor Kublai, ruled the whole empire. Subsequently, by their conversion to Buddhism and under the influence of their Lama priesthood, the wild Mongols and allied tribes have been tamed into willing submission to the 'Son of Heaven,'—the divinely appointed regent of the whole Far East; and so the *officina gentium* is no longer a Yellow Peril to China nor to the rest of the world. The real 'Peril' to the peace-loving industrious Chinese race hails from farther north. The Chihli plain, like all other unirrigated land, is dependent upon timely rainfall for its fertility: when this fails, as occasionally happens, the loess or loam, of which a layer of varying thickness covers the upper or more inland portions of the plain (the underlying stratum being an unfertile marine gravel to which the consequently rough, stony roads have cut down), is blown by the winds in thick clouds of dust to great distances, and, with dust and sand from farther west, makes the famous dust-storms of Peking. But the cause of these persistent dry westerly gales which bring the dust-storms is difficult to detect. The meteorology of Eastern Asia is not yet observed as it some day will be, and still less properly understood. We can understand that the heated deserts of Central Asia in summer lead to an immense ascending column of hot air, and so to an inrush of colder air from the surrounding seas, causing the phenomenon of the south-west monsoon—and that a reverse process in winter leads to the north-east monsoon in the China Sea—

veering to a north-west monsoon in the Yellow Sea farther north; but how to account for the steady westerly gales that (as in 1900 and in 1903) often prevail day and night, with but a day or two's interruption at intervals, throughout the months of March, April, May, and on into June? The result of these long-persistent, hot, dry land-winds is not only to render Peking almost uninhabitable at that season with any comfort, but so to parch up the country that a view across the western hills over brown burnt-up grass and the dry parched plain is one of mid-winter, and, but for the heat, it is hard to realize that the month is June. On such occasions it is pitiful to see the winter wheat only sprouting above the ground to wither and die, and the country people walking round their fields with bunches of the parched stalks held in their hands above their heads for Heaven to witness and relent. Spring does not then begin really before July, when the rains set in and enable the peasants to plough the land for an autumn crop of millet, a quick-growing cereal whose prolific yield makes amends for the loss of the wheat.

The fifth province in the northern region is HONAN, literally 'south of the river'—THE river of the old Chinese—the Yellow River. Honan has an area of 67,000 square miles and is credited with a population of 22,000,000. In the west, the province is mountainous and so sparsely populated. The mountains comprise the eastern extension of the Tsing-ling, which runs east and west to the south of Si-an, the capital of Shensi, and is prolonged through the western half of Honan, when it loses itself beneath the alluvial eastern expansion of the province, after having given rise to two of the 'Three rivers' (the San Kiang of ancient China)—the Lo and the Hwai, the third being the Yellow River itself, which traverses the province east and west, before bending north-east to flow through Shantung to the sea. Immediately above this point and south of the river stands the capital, Kaifeng. The 'Lo' falls into the Yellow River not far below the city of Honan-fu, whose southern walls it washes. The 'Hwai,' after traversing the province of Nganhui to the east, discharges into the 'Red Lake' in Kiangsu and is lost amongst the network of canals and lagoons that cover the central portion of this province, ultimately draining into

the Yangtse through the Grand Canal and other semi-artificial channels to the east of Chinkiang. The western limit of Honan is coterminous with that of Shansi, where the Yellow River makes its great rectangular bend from south to east, and so, leaving Shansi on its left bank, traverses the Honan plain,—its upper course forming the boundary between Shansi and Shensi in the west. It is at this point that stands the ancient fortress of Tung-kwan, the 'eastern barrier' at the gorge where the Yellow River, after its great sweep to the north, unites with the Wei from the west. It was not till this strong natural barrier had been left behind that, in 1900, the Empress Dowager felt herself safe in her flight from Peking, when she took up her residence in Si-an, the ancient capital of Shensi, fifty miles farther west. The eastern border of Honan abuts on four provinces—Chihli, Shantung, Kiangsu, and Nganhui: the boundary appears to-day an arbitrary one, but it was probably dictated in ancient times by water-courses and impassable swamps that have since altered their position. The southern boundary is formed by the crest of the Hwai range, which shuts it off from the Yangtse province of Hupeh. This range is now traversed by the new Hankow-Peking railway, the Pe-han as it is now called, and which crosses the Yellow River at Kaifeng-fu, the capital. Kaifeng, under the name of Pien-liang, was made the capital by the Liu-Sung dynasty, which ascended the Dragon Throne in A.D. 420. The city, which once stood on the left bank, now lies twenty miles to the south of the river and some twenty feet below its level. Constant embanking (to the neglect of the maxim enunciated in Szechuan by the 'Lord of waters' and there religiously obeyed), without dredging or digging out the bottom, has resulted in raising the bed of the river far above the level of the plain it flows through. Travelling on the plain advancing to meet it, no one would anticipate a river in the distance,—rather it looks like a lofty railway embankment, and the traveller has to climb up a steep ascent to reach the ferry-boat on the top. Hence a breach in the embankments, such as occurs at frequent intervals, means the flooding of the plain and the destruction of crops throughout a vast extent of country, attended with great loss of life. Although the Chinese show marvellous cleverness in closing such

breaches with no better material than mud and millet-stalks, yet they cannot prevent sufficient time elapsing meanwhile to suffer an escape of water which floods the land for hundreds of miles round, and sometimes takes years to drain off. At the time of the Manchu invasion in 1644 the embankment was purposely cut through by the Chinese defending Kaifeng in the interest of the Mings, when 300,000 of its inhabitants are said to have perished: an heroic measure which was, however, unsuccessful in arresting the southern progress of the victorious Manchu. In Kaifeng is still to be found the remnant of the colony of Jewish merchants established here, under characteristic Chinese toleration, in the early years of the Sung, nine hundred years ago. The ancient capital of China, from the commencement of the historic period, say B.C. 781, stood in this province, but in its mountainous western portion, close to the Shensi border. This ancient capital, known as Lo-yang, was situated 150 miles to the west of the present capital, near the source of the river Lo¹. In feudal times, all this region formed part of the Imperial domain of the 'Chow,' the feudal overlords of a congeries of semi-independent States, whose internecine struggles were brought to an end B.C. 221 by Cheng, Prince of Tsin, the famous 'First Emperor,' the builder of the Great Wall and destroyer of books, well styled the 'Napoleon of China.' The founder of the Han dynasty, who succeeded in ousting the 'First Emperor's' feeble successor from the throne twenty years later, removed the capital to Chang-an, the modern Si-an, in Shensi. Chang-an remained the capital for 230 years, throughout the reigns of the Western Han, until A.D. 25, upon the acces-

¹ Lo-yang is also of interest as the site of the first recorded introduction of Buddhism into China. Although Sakiamouni taught in India in the seventh century B.C., yet it was not till about the date of the Christian era that his doctrines appear to have been heard of in China. Chinese historians tell us that it was due to a dream of the 'Han' emperor, Mingti, that in A.D. 65 envoys were sent to the Isles of the West (Ceylon?), whence they returned to Lo-yang A.D. 67, bringing with them an image of the great founder, whereupon the doctrine of Sakiamouni was officially accepted in China; but it was not until A.D. 399 that the celebrated monk, Fa-hien, set out for India, whence he returned fifteen years later with copies of the sacred books, but China was then in too distracted a state to profit by them, it being then in the throes of establishing a new dynasty (the Sung); again, during the flourishing Tang dynasty, the monk Hsüan-tsang made a similar journey, A.D. 628-645.

sion of the hence-called 'Eastern Han' dynasty, Lo-yang was restored to its old pre-eminence, and remained the capital of all China until the fall of the Han, A.D. 220. Lo-yang was once again the capital during the 'Eastern Tsin' dynasty, A.D. 317 to 419: and lastly, during the period of the famous Tang dynasty—whose glories lead the Cantonese to this day to style themselves 'men of Tang,' while in North and in Central China the inhabitants style themselves 'men of Han.' This period, A.D. 618 to 907, closed by the accession of the Sung to power and the establishment of their new capital 150 miles farther east at Pien-liang—now known as Kaifeng-fu (A.D. 960-1126). Since this date Lo-yang has so declined in importance that its site has disappeared from the map and is only known to students.

Though its birthplace was farther west (probably in the neighbourhood of the present province of Shensi), Honan may be well considered the nursery of Chinese culture and civilization. Lying mostly to the south of the thirty-fifth parallel, the climate is warmer and more temperate than that of the provinces of Shensi and Shansi to the west and north, being protected from the bitter north-west gales of winter by the Tai-hang range, on the borders of Shansi, on the north, and by the lofty Tsing-ling range of Shensi on the west. Honan produces large quantities of cotton and hemp, as well as the cereals common to the latitude. It was this province that gave rise to the old denomination of China as the Chung-hua-ti or 'Central Flowery Land,' now shortened into Chung-ti or Chung-kwoh, the 'Middle Kingdom.' As Dr. Wells Williams has told us, in his invaluable work, *The Middle Kingdom*: 'The earliest records of the Black-haired race refer to this region, and the struggles for dominion among feudal and imperial armies occurred in its plains.' Its mineral resources are known to be of great extent; the huge deposits of coal and iron that characterize the neighbouring province of Shansi extend unbroken across the Honan border, but, as elsewhere in China, have long lain undeveloped, the absence of roads of communication restricting the output to the needs of the limited local consumption: for the Yellow River, which borders that province on two sides, is practically un-navigable; its shallow waters spread out over a wide bed, and flow with a rapid current to the sea. Central and Southern

China, equally deficient in made roads—'dry ways,' as the Chinese call them—have their compensation in a magnificent network of deep navigable rivers and canals: but Honan still depends for the circulation of its produce largely upon man-power wheel-barrows driven over unmetalled roads which in wet weather are practically impassable. Now, at last, however, a British company, the 'Peking Syndicate,' have obtained a concession to develop its minerals, and are (1903) building a railway with the view of connecting the mineral regions of the north and west with the Hankow-Peking trunk line which

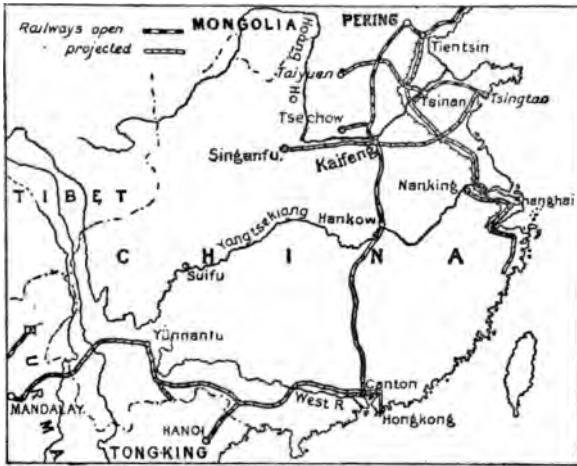


FIG. 11.—Railways in China.

traverses the east of the province. Geographically and historically a northern province, the boundaries of Honan dip far to the south (lat. $31^{\circ} 30'$), thus embracing the northern portion of the valley of the Hwai, a river which has its sources in the northern slope of the Fu-niu-shan, the steep range that divides Honan from Hupeh, and which may be considered as the eastern terminus of the great Kwenlun chain of mountains, prolonged from Northern Tibet across China proper. It was doubtless with the view of obtaining as a frontier a mountain crest—that true scientific frontier that prevails throughout the empire,

down to the divisions of the 1,300 counties of China proper (and even in the boundaries of private properties), the nearest water-parting—that the bounds of Honan were pushed, in early days, as far south as we find them. This nearest water-parting was first met with in the mountains of the Hwai.

The last of the six provinces on our list—which in themselves

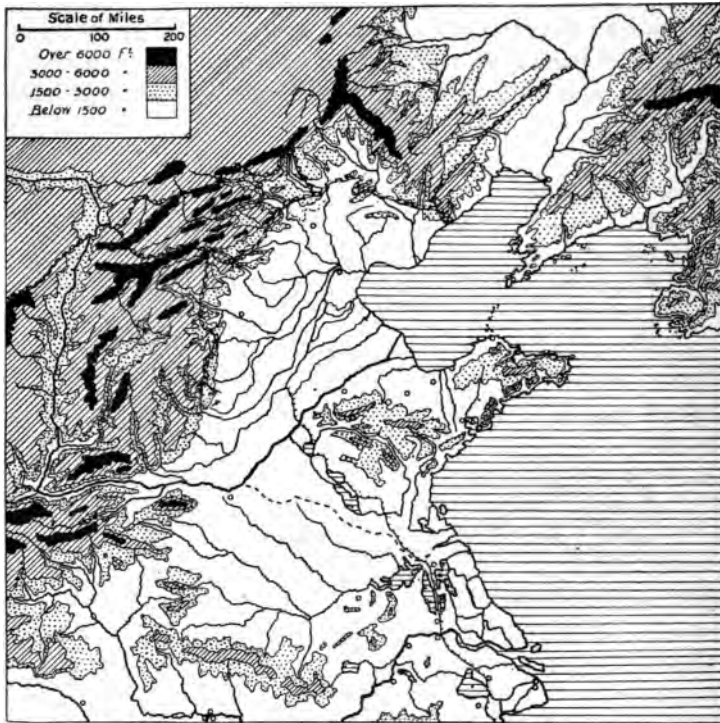


FIG. 12.—North China. Orographical.

comprise North China, and which may be taken as identical with old China—is Shantung ('east of the mountains'), the home of ancient Chinese philosophy and its revered expounder Confucius. Jutting out into the Eastern Sea in a high mountain promontory, the province of Shantung is, with the exception of the flat land, through which flows the Yellow River along its north-western border, formed of an involved nexus of granitic

mountains totally disconnected with the great ranges of the rest of China, from which it stands separated by the great plain of Northern Shantung and the valley through which the 'Grain Canal' (Grand Canal) has been cut. The promontory of Shantung stands out as a big mountainous island from the plain which separates it from the mountains of Shansi, and which left it



FIG. 13.—North China. Political.

a true island, what time the plain was not yet deposited and an arm of the Yellow Sea flowed round behind and so cut it off from the main continent and what is now the highland of Shansi. Indeed, Shantung is more immediately connected with the opposite shores of Corea and Liaotung, the chain of the Miao islands forming the bridge. This bridge of islets running north and south from the city of Tengchow in North Shantung to

opposite Port Arthur, situated at the southernmost point of the Liaotung peninsula, divides off the enclosed Chihli Gulf from the open Yellow Sea to the east and is about sixty miles in length. From Corean territory the Shantung promontory is distant 100 miles across the bay of Corea, so called, which the promontory bounds on the south, thus dividing the Corea bay from the Yellow Sea which washes its southern shore.

This noted promontory forms a barrier right in the way of steamer traffic between the important marts of Shanghai and Tientsin, and its precipitous shores, being frequently enwrapped in fog, have been the scene of many naval disasters, one of the most noted being that of the German gunboat *Illis* in July, 1896, with a loss of seventy-seven lives. Near the eastern extremity, and on the Corea bay side, is the port and quondam fortress of Wei-hai-wei, which after its capture by the Japanese in 1895 was finally leased by China to Great Britain in 1899 and is now used as a northern anchorage and sanatorium, and no longer as a fortified naval base. On the opposite shore of the promontory, in its southern elbow as it were, facing the Yellow Sea, is the fine bay of Kiaochow, seized by the Germans in 1897, and now by them being vigorously developed into a great trading port and railway terminus. Midway in the neck of the peninsula, where an eastern fork of the delta land of the Yellow River abuts upon the Lai mountains which go to form the well-known Shantung promontory, stands the city of Laichow. This city is situated on the shores of a bight of the Chihli Gulf, at the point of the southernmost extension of the latter, and so on the northern coast, almost directly north of Kiaochow, situated on an analogous bight of the Yellow Sea on the south coast,—the depression here crossing the peninsula, and through which flows the Kiaochow river, being about sixty miles in length. To the east of Laichow the mountains are composed of Archaean schists, gneiss and crystalline limestones of probably Laurentian age : and to the west of horizontal limestones rising into coal measures near Wei-hien in the prefecture of Tsingchow, whence, by the new railway, a German company now supplies Tsingtao with coal. West of these the limestones terminate in a great fault, by which they are separated from the granitic and gneissose nexus of the Tai-shan and the mountains of the Shih-men (Stone Gate) range,

which together compose the mountainous region of Western Shantung, and which, farther west, subside again into the level valley of the Yellow River.

The total area of Shantung is 57,800 square miles, feeding a population of some 25,000,000 souls : the mountainous eastern half of the province is dry and comparatively barren, and the population is poor, and so emigrates in large numbers to the more fertile plains of Chihli and Manchuria, this latter country being now largely populated by immigrants from Shantung and their descendants : the western part of the province includes the great plain traversed by the Yellow River, which here flows in a direction south-west and north-east, and the Grand Canal, or the 'Imperial River' (Ue-ho, as it is called in Chinese), crossing the former at right angles. The canal is dug for one hundred and fifty miles within the boundaries of the province in a direction north-west by south-east. The wide alluvial area through which it runs, and which is prolonged uninterruptedly into the Chihli plains, is extremely productive and supports numerous cities and marts, among the former being the capital of the province, Tsi-nan-fu. This city stands on the right bank of the Yellow River, four miles south of the actual channel, and is approachable within a short distance by small flat-bottomed steamers; it is built at the edge of the extreme northern slope of the famous TAI-SHAN, an isolated range of lofty peaks distant a day's journey to the south : but the city through which the Tai-shan is approached is Tai-an-fu, built at the foot of the mountain on its south side. This Tai-shan, a northern outlying range of the mountain mass that fills the western portion of the province, is the oldest sacred mountain of which Chinese history makes mention : the mention occurs in the Shu-king, or 'Book of History,' where sacrifice to and worship of Shang-ti, i.e. God (or [?] Supreme Gods ; cf. *Dii superi* of the Romans), is recorded as having been offered by the emperor Chun, B.C. 2255, on the Tai-shan. The 'Book of History,' the earliest of the nine canonical books of China and believed to have been edited by Confucius himself, professes to go back to the mythical Golden Age of Yao and Chun, and to record the principal events from B.C. 2375 to 627. At this day the precipitous peaks of the range are covered with temples and monas-

teries which are the goal of thousands of pilgrims in the spring season : the peaks rise to 5,000 feet and stand out prominently from the neighbouring mountains. Shantung is farther pre-eminently famous for containing within its borders the grave of the 'Perfect Sage'—Confucius—and the home of his successors, Dukes Kung, who are still living on the same spot, now for seventy-six generations—the oldest pedigree in existence : the birthplace and tomb of Mencius, the second sage, are also in this province. But to European residents in China the province is chiefly notable as containing the Treaty Port of Chefoo, situated on the northern shore of the promontory : the main 'foreign' trade of the province still centres in Chefoo, and consists chiefly in the export of straw-braid and pongees, the latter a strong useful silk stuff woven from the cocoons of the wild silkworm that feeds on oak-leaves. Chefoo is connected with the interior of the province by rough mountain-paths over which pack-mules convey the inland produce to the port ; and it is only to be expected that the new German port of Tsingtao to the south of the promontory, now happily freed from Chinese obstruction, and one day nearer Shanghai by steam, will ultimately divert to itself the trade that now has Chefoo for its outlet. Tsingtao is nearer the consuming districts, besides being the terminus of the new railway traversing the province. If Chefoo is not to succumb entirely it must cease to 'stand on its ancient ways,' and promptly form railroad connexions of its own. So much interest now centres in Tsingtao, and so little is known about the actual state of things there, that we venture to add an account written by us after a visit to the port this summer (1903), a translation of which was published in the principal German newspapers.

TSINGTAO lies 300 miles north of Shanghai and is a thirty-six hours' run for the steamers that now perform the service. The complete change of soil and climate experienced in this short interval is very striking ; the rich alluvial plain of the Yangtse delta is left behind, until its northern boundary is reached in the arid granite mountains of Shantung. Into these the wide bay of Kiaochow gives an opening, and at the eastern extremity of the bay is situated the whilom fishing village of Tsingtao, now, since 1898, the proud metropolis of Deutsch-China.

The impression made upon the writer upon approaching Tsingtao for the first time, was that of a collection of toy houses set down on a shore of glittering yellow sand : so clean and new, of red brick and white plaster, and scattered over a considerable area without any apparent plan, seen from a distance the innumerable isolated buildings fail to convey the common idea of a town with regular streets of continuous houses. Towers at the corners of buildings with red and white cupolas complete the illusion, and the lack of traffic in the wide well-kept streets confirms the idea of a model town capriciously erected at the wave of a magician's wand rather than that of an ordinary city whose growth has adapted itself naturally to the wants of its inhabitants. Such is the impression on approach ; on landing at the fine jetty run out into the sea, one realizes that the bright new buildings are really inhabited, although, from the deserted air of the streets, the inhabitants would appear to be mostly indoors. A main cause of this apparent absence of population is the lack of Chinese residents such as swarm in our Treaty Ports and give life to our settlements, while in Tsingtao the Chinese coolie is relegated to a special quarter a couple of miles inland, and only invades the new German city when work or business calls him there. For German official 'thoroughness' is exhibited at every step in their new possession, and having planned a town for Europeans they have been careful to maintain the town purely European by expropriating the original Chinese inhabitants in a most thorough fashion.

Thus the original villages on the site of the new town have all been pulled down, their ruins being still visible in many places, the owners having been paid a fair money compensation besides having new ground allotted to them at a distance, in which roads and drains have been built at the government expense and in which sanitary rules are strictly enforced, much to the disgust, if not to the benefit, of the Chinese ; certainly the benefit to European residents is indisputable, and one can but regret that similar enlightened measures were not originally adopted in Shanghai and Hongkong, and still more markedly in the neighbouring port and should-be sanatorium of Chefoo, in which cities the interests of landowners, largely absentee, and land speculators have been allowed to set aside those of the general public, whose health and comfort have been sadly impaired by their being compelled to live amidst a dense Chinese population, brought around them by their own activities. A paternal government that, unlike our own municipalities, has no land-owning interests to serve, is thus not without its advantages,

however much it is the fashion to decry, if not to despise, German officialdom—which appears at its best in Tsingtao—at least if we may judge by outside results to-day. . . . As a harbour Tsingtao has the drawback of being open to easterly winds, and, when these prevail in strength, vessels may lie for days without being able to discharge their cargoes, owing to the heavy sea that then rolls into the bay: but this defect is being energetically remedied by the construction of a large inner artificial harbour, a short distance higher up the bay and round and behind a projecting rocky point, in which vessels will lie alongside wharves and godowns as in a dock at home, and whence the railway will convey their cargoes direct into the interior of the province. This railway is destined to connect with the 'Lu-han,' across the Grand Canal, and so with the interior of China generally. A similar harbour on a small scale has already been constructed under the shelter of this point for junks and cargo-boats. Dredging is being carried on vigorously, a peculiarity of the Kiaochow bay being that, large as its area is, it is being ever choked with sand which the short-lived but heavy summer rains wash down in impetuous torrents from the steep mountains of friable granite which surround it on all sides: to the mighty work of these torrential rains are due the jagged picturesque outlines of the hills, renamed Iltis Gebirge, Prinz Heinrich Gebirge, and others, which add so greatly to the beauty of the site. Well-made macadam roads now lead up and over the former range and are being constructed in the direction of the latter. These, with the easier graded roads leading into the more level interior, together with the bright bracing atmosphere, form a great attraction to the cyclist. . . .

But of all the many works undertaken by the German administration during the four short years of the occupation, the attempt to re-afforest the barren mountains of Shantung is likely to prove of the greatest benefit to the Chinese; if only they were capable of profiting by the example set them! Dwarf pines, rarely over three feet in height and spreading laterally for want of shelter from the gales, already cover the hills in the less exposed spots; their low growth is due to the Chinese habit of annually docking the tops for fuel. It remains to be seen how far the forestry department will succeed in acclimatizing a true forest growth on these bare slopes. Of course, when the forest is once there it will in time furnish its own soil, but immense care and toil is required to make the start. It is interesting to notice that so far the old indigenous growth, planted by nature, has decidedly the best of it, especially now that it is religiously

protected from the rapacious fuel collector. We have ourselves seen, in other parts of China, promising plantations utterly destroyed by that all-pervading pest, the small boy, and small girl too, sent out from home in the morning, to collect, by hook or by crook, a load of brushwood before evening. It is worth a journey to Tsingtao for a China resident to enjoy the sight of trees—small though they be—growing on the hillside unmolested. The administration is very strict; signboards with the word 'Schonung' surmounted by a black eagle abound. The new trees—oaks, acacia, horse-chestnut, sterculia, cryptomeria, paulownia, and others that we saw—were only a few inches above the soil, and so at present make no show amidst their ancient predecessors on the ground; but the start has been made, millions of young trees have been sown and planted, and in a few years' time the result will be seen, and youngsters yet in Shanghai may live to see another Bournemouth in China, where now is nothing but yellow clay, intercepted by ravines—the beds of now dry water-courses.

A marked feature in the great work now proceeding at Tsingtao is the regulating of these water-courses, with a view of holding back the water and distributing it more evenly over the ground. With this object a succession of barriers has been carefully built athwart the course of each torrent from its source to the sea, beginning with an unsubstantial row of small stones high up near the source, and ending with solid dams of masonry as the streams gain in volume and approach the sea. Behind these, ponds are collected which serve for irrigation, natural and artificial. It is a most interesting experiment and, based as it is upon experience gained under similar conditions in other parts of the world, should prove successful; in which case it will be an invaluable object lesson to this empire of floods and drought. The occupation of Kiaochow seems to us justified by this work alone, even if it fail to serve the purpose (and there is no reason to expect it will fail) of promoting trade generally, and of enriching the impoverished province of Shantung in particular.

Great expectations were founded upon the connexion of the Wei-hien coal-fields with the new port, but so far these have hardly been realized. The reasons given to the writer were: first, that the German mining company find it more profitable to sell their coal locally; second, that the railway has few coal-trucks: time will doubtless correct both these causes of short supply in Tsingtao. The quality of the coal too, as everywhere in Eastern China, is poor—friable, peaty, and very smoky. The revenue of the colony, drawn from local

taxation, reached last year a total of half a million marks, the product of land sales (to bona fide settlers only, who are compelled, subject to forfeiture, to occupy within a limited time) forming one-third of the amount. The subvention granted by the Home Government for public works for the year 1903 is roundly one million dollars. It were to be hoped that our own government in the neighbouring Crown colony of Wei-hai-wei, which is naturally a still more favoured site than is Tsingtao, would take a lesson from the Germans and there, too, cover up the nakedness of the hills, as has been so successfully done in Hongkong.

At Tsingtao great results have been achieved in a short time, and the good taste and practical sense in making ample provision for future growth, a need generally lost sight of in British Crown colonies, must strike every visitor to the place. The architecture of the public buildings is of a high order and agreeably varied; it ranges from antique Gothic to the newest Renaissance. As the vacant spaces fill up, and trade and population develop, Tsingtao should become one of the handsomest cities in the East, and may, as its sanguine residents fondly hope, and as their energy merits it should, yet become the Hongkong of the north.

We thus complete our survey of the northernmost of the three natural divisions of China proper, and now quit the watershed of the Yellow River for that of its mighty rival, the Yangtse. This stream, which flows in a parallel course south of the dividing mountain crests, and whose watershed determines the vaster area of the Yangtse Valley, forms the subject of the chapter that follows.

CHAPTER IV

THE MIDDLE BASIN: PART I. THE YANGTSE RIVER

THIS middle basin of the Central Kingdom—China—is correctly defined in the words of a dispatch penned by Sir Claude Macdonald to the Chinese Foreign Office on February 19, 1898, as 'The Yangtse region' and the 'provinces adjoining the Yangtse.' A more exact definition is the 'Yangtse basin,' as is the definition of the northern basin we have just described—the 'Basin of the Yellow River.' The boundaries of the Yangtse basin are the crests of the water-partings that surround the catchment area, which area, in order to confine ourselves to the Middle Kingdom proper—the 'eighteen provinces,'—we bring to an end in the west at the political frontier of Tibet, cutting out from our purview that upper part of the basin that lies along the higher courses of the Yangtse across the frontier. This limit, as given in modern Chinese maps, in no way corresponds with the geographical limit, the province of Szechuan; which the older maps marked as bounded on its western border by the Tatung river, and which is the true geographical and ethnographical limit, the boundary being now made to embrace a large slice of the Tibetan plateau up to and beyond Batang: much as Yunnan, since the suppression of the Mahometan rebellion in 1875, is now made to include Atuntse and the country west of Tengyueh, nearly up to the walls of Bhamo.

While the northern basin is of the greatest historical interest, as the early home of the Chinese race and the seat of their ancient literary activity in its classical period, yet the middle basin holds the chief modern interest as the richer commercially and the seat of the endless roll of produce derived from a fertile, richly watered, sub-tropical region, rendered accessible to outside commerce by the finest of the world's great rivers—the Yangtse. The valley of the great Yangtse, with its tributaries, is to China what the valley of the Mississippi and Missouri

rivers is to North America, or the valley of the Amazon to South America. In each case it is the heart of a continent as represented by the valley of its greatest river. In the case of China, this heart comprises an area of 600,000 square miles inhabited by 180,000,000 people, and embraces the six large provinces of Szechuan, Hupeh, Hunan, Kiangsi, Nganhui, and Kiangsu, besides the northern drainage area of the southern provinces of Yunnan and Kweichow,—a region extending roughly between the twenty-sixth and thirty-second parallels of north latitude and between the ninety-eighth and one hundred and eighteenth meridians of east longitude.

The striking effect of geographical conditions in the development of a people is shown in the long confinement of the Chinese race to the region north of the Tsing-ling mountains,—the range that forms the water-parting between the basins of the Yellow River and the Yangtse. It seems idle to speculate on the primary origin of the Chinese race, but this we do know, namely, that they remained stationary during a period of about three thousand years (say, B.C. 2852 to 202) in this region, cultivating the fertile bottom lands of the Wei and Yellow rivers and the open loess country of Shensi, from whose yellow soil the old name of 'Yellow Emperor'—Hwangti—is supposed to be derived. The loess prairie lay open ready for the plough, while to the south were lofty mountains covered with impenetrable forest, with which also the whole Yangtse basin was at that period equally filled up. It was the continually increasing pressure of Tartar incursions from the north that probably drove the Chinese to seek more peaceful homes in the south, and gradually to clear away the forests that covered the country. Although Chinese history records fighting with the savages who then occupied the region, we hear of no long continuous struggles like those carried on almost uninterruptedly with their northern neighbours. The Chinese were so harassed by these savage irruptions from Mongolia that they underwent the enormous labour of building a series of walls and fortresses along their northern frontiers, culminating in the Great Wall, itself built about 200 B.C., to keep them out. And they were so frequently conquered in these struggles that they had to submit to a succession of Tartar dynasties (as now to that of the Manchus) in North

China, until finally the Mongol dynasty under Kublai ruled the whole empire, north and south ; the Mongols were driven out by the Mings in A.D. 1368, whereby an interregnum of Chinese rule, lasting 276 years, succeeded until the final conquest of China by the Manchu Tartars was completed in A.D. 1644. The more manly Tartar element infused into the blood of the inhabitants of North China is shown in the superior physique and bearing of the northerners as compared with the effeminate, more purely Chinese inhabitants of the Yangtse region. The Tartars throughout appear to have fused with the Chinese, and to have ultimately adopted their civilization with all its features, good and bad ; then each hardy tribe, one after another, has succumbed to Chinese luxury, become effete, and so has had to submit to be driven out by more vigorous successors, until these in their turn ultimately go the same road. In the present Manchu dynasty we see, thus, how the splendid early emperors, men of active habits who made royal progresses through their magnificent acquisition and saw things with their own eyes, have been succeeded by palace debauchees content to leave the government in the hands of corrupt favourites. The reigning Empress Dowager would seem to have incarnated the vigour of her ancestors of the seventeenth century, but she has fallen upon troubled times and lacks the knowledge and education necessary to cope with them.

The southern aborigines of the Yangtse basin in its western portion seem to have been driven back with little serious opposition into the mountains of the Tibetan border, much as the Saxons drove the ancient Britons to take refuge in the Welsh mountains : in the eastern portion of the basin the Chinese appear to have intermarried with the natives who were less barbarous than those of the west : but this is only conjecture founded upon the appearance of the present inhabitants of the region. But the truth is that, taken generally, the inhabitants of the China of to-day are a wonderfully homogeneous race, quite as much so as are the inhabitants of modern Europe ; their habits, customs, manners and deportment being absolutely identical throughout the 'eighteen provinces.' This evidence of close intermixture is astonishing when one notes the wretchedly primitive means of intercommunication in parts where water-

carriage is unavailable ; it must be attributed to the indefatigable energy of the travelling merchants, who are found daily on all the roads, 'wet' and 'dry,' throughout the empire, and to the constant interchange of swarms of officials, due to the law that precludes an official from serving in his native province, and to the custom of removing an official from his post after a term of three years or less of service. Orders, only possible under a despotic government and with a submissive people, to change their costume to that of their rulers and (notably in Yunnan and Szechuan) to adopt the language of the Court have also been effective in producing this homogeneity, such as the inhabitants of Hindustan, for example, have never attained to, and such as Europe is still striving for to-day¹.

Before we proceed to describe the six separate provinces which we have taken to compose the Yangtse basin, or, as we have entitled our chapter, the 'Middle Basin,' it will be well to fix in the mind the position and character of the great river itself which forms the axis of the region, and I do not think this can be better done than by quoting here my sketch of the subject as printed in the twelfth chapter of my work *Through the Yangtse Gorges*:—

The Yangtse river, which is known to the Chinese as the 'Kiang,' i.e. 'The River,' *par excellence*, in contradistinction to the Yellow River, which is called the 'Ho' *par excellence* (compare German *Strom* and *Fluss*), has a course of about 3,000 miles in length. It is unknown to the Chinese as the Yangtse, which means the river of Yangchow (opposite Chinkiang), an old district and town of Kiangsu situated nearer the then mouth than it now is, although this term has been unearthed in some ancient topographical work. In their maps and in converse the Chinese call it the Chang-kiang, or 'Long River,' up to the Tungting Lake ; the Chuan-ho, or 'Szechuan River,' between Ichang and Sui-fu ; and the Kin-sha-kiang, or 'Gold-sand River,'

¹ A main and beneficent factor in bringing about the homogeneity of the inhabitants of China has been their ideographic writing. For, whereas the phonetic writing of Europe has led to the differentiation of dialects derived from one original tongue (notably of the Latin ; cf. Italian, French, Spanish, Portuguese, Roumanian, &c.) becoming crystallized into distinct languages, the ideographic writing of the Chinese has arrested such differentiation and led to the innumerable dialects of China becoming welded into one language universally intelligible.

above that point. The style 'Yangtse' does well enough, however, and is now generally accepted, and is in any case a better term than the French 'Fleuve bleu,' by which I can only imagine the early Fathers desired to contrast it cartographically with the Yellow River of the north, for, except in the depth of winter (the dry season) and then only for a short time and in its upper reaches, the river is as heavily silt-laden and as yellow as its older prototype, the 'Ho.'

Starting from its source in the Kwenlun mountains of the high Tibetan plateau, the Yangtse river first cuts its way through Eastern Tibet in a south-east direction and, after entering Szechuan north of Batang, dips down into Yunnan and then turns north-east, traversing the whole of China from west to east; it may be said to divide the Chinese Empire into two nearly equal portions, eight provinces being situated on the left bank, with the same number on the south; two only, Nganhui and Kiangsu, lying partly on both banks. For two-thirds of this distance it runs through mountain land in a continuous ravine, *the valley being nowhere wider than the river bed*. In the lower portion of its course, which forms the remaining third of the distance, the valley widens out, and the stream flows through an alluvial plain, following generally the southern boundary of the valley except where it forces its way athwart the limestone range which forms the division between the provinces of Hupeh and Kiangsi, above the Treaty Port of Kiukiang, past the vertical cliffs called Split Hill and Cock's Head in our English charts, until it emerges into its delta proper at Kiang-yin, 110 miles above the mouth of its estuary at Yangtse Cape. The stream first emerges from the mountains at the Ichang gorge, 960 nautical miles from its mouth: and some fifty miles below this point the boulders and gravel of the upper river give place to banks of soft alluvium, the outline of which varies every season, notwithstanding the gigantic embankments with which it is sought to retain the stream in its channel. These begin a short distance above the great emporium of Shashih, situated in the midst of the Hupeh plain, eighty-three miles below Ichang. Here we find the river, at the time of its summer floods, running with a six-knot current at a level of ten or fifteen feet above that of the surrounding country, the great dyke on the north bank

being continuous nearly to Hankow : while, owing to the decay of the embankments there, the south bank is open to the floods as far as the eye can reach, and a vast inland sea is thus formed, which mingles its waters with those of the Tungting lake proper, from which its outline is then indistinguishable. From this point downwards the fall in the bed is comparatively slight.

A comparison of three years' barometrical readings at Chungking, in Szechuan, and at Sikawei, the observatory of the Jesuit Fathers near Shanghai, and the *résumé* of some 4,000 observations enumerated in Mr. Baber's paper on the subject, exhibit the unexpectedly small difference of level between the two places of 630 feet. Now, as the average rate of the current down the rapids, which, large and small, obstruct the river throughout the whole distance of nearly 500 nautical miles between Chungking and Ichang, is not less than five knots, a fall of twelve inches to the mile between those two places cannot be considered excessive. This would give a total of 500 feet as the fall for these 500 miles and leave 130 feet for the fall from Ichang to the sea, 960 miles below. The great fall in the river bed is, as is only natural, in the upper half of its course, where the stream rushes as an unnavigable mountain torrent through the defiles of the unpenetrated ranges of Western Szechuan and Tibet, and where Mr. Baber estimates the fall at no less than six feet to the mile. The average speed of the comparatively more tranquil lower half, say from Pingshan, the city situated at the head of the present junk navigation, some 1,700 nautical miles from the sea, is still, as Captain Blakiston, the early explorer of the Yangtse, points out, double that of the Nile and Amazon, and three times that of the Ganges. This greater fall in the bed and consequent rapidity of current is attributable to the greater hardness and insolubility of the rocks over which the Yangtse water flows.

The volume of water brought down per second, as measured by the same careful observer, is, at Ichang in June, 675,800 cubic feet ; that at Hankow, 360 miles lower down, being at the same period, according to Dr. Guppy of H.M.S. *Hornet*, nearly 1,000,000 cubic feet : the increase being due to the influx from the Tungting lake, 120 miles above Hankow, and from the Han river, which flows into the Yangtse at Hankow and

from which the town of Hankow takes its name, which two are the only noticeable affluents throughout this stretch of the river. Compared with these figures, it is curious to note that the water discharged into the sea by the old familiar Thames is estimated at 2,300 feet per second. Reducing the figures given by Captain Blakiston for Ichang in June to the average of the year, on the basis of Dr. Guppy's monthly observations in Hankow, we find the discharge at the former port to be actually 560,000 feet per second for the whole year round, which would make

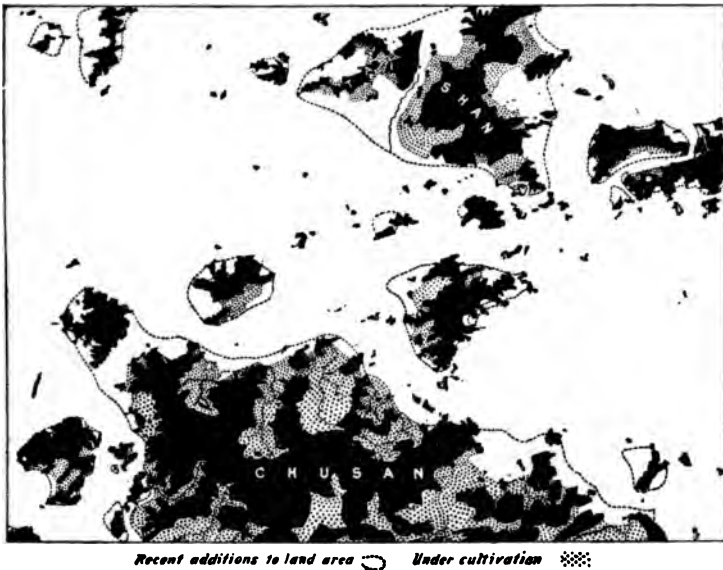


FIG. 14.—Growth of the Chusan Archipelago.

the volume of water at Ichang, 960 miles from the sea, just 244 times that of the Thames at London, distant from the sea forty miles only. The amount of solid matter in suspension carried annually past Hankow, 600 miles from the sea, is estimated by the same observer at five billion cubic feet.

The comparison of the sediment annually brought down by the respective rivers at these two points, admitting the estimates to be fairly approximative, is as 2,000,000 cubic feet to 5,000,000,000 or as 1 to 2,500. Taking the drainage area of the Yangtse at

600,000 square miles, and estimating the sediment discharge as above, both Captain Blakiston's and Dr. Guppy's figures give a rate of sub-aerial denudation for the whole catchment basin of about one foot in 3,000 years. Allowing that one-half of this amount of sediment is employed in raising the banks and in filling up the expanse of its inferior valley while inundated by the summer floods, the remaining half, carried out to sea, is sufficient to create annually a fresh island in the Pacific one mile square and fifteen fathoms deep. The rapid rate at which the coast-line is gaining on the ocean, startling ocular evidence of which is presented to every old resident of Shanghai, is thus not surprising. In the very near future the innumerable rocky islands which fringe the coast, the 'Saddles,' the 'Rugged,' and the Chusan archipelago generally, and which now stand out of the shallow waters of the estuary, will look down upon embanked paddy-fields, with the river flowing between, precisely as the hills inland from Shanghai now stand out from the fields which have been raised by the same process within the limits of the historical period.

It seems to me a matter of no doubt, that in comparatively recent geological time the Yangtse river, upon leaving the Tibetan mountains, discharged its waters into the ocean through a series of lakes, the remains of which still occupy a considerable portion of the valley in winter and which, in summer, are enlarged by the floods to almost their original surface area. Leaving out of account the ancient tertiary lake which once covered the surface of Eastern Szechuan, and in which the sandstones of its famous 'red basin' were deposited, we find the first of these recent lakes comprised within the boundaries of the present province of Hupeh, and at the highest floods, which occur once every ten years or more, the waters—making sport of the numberless embankments—still flood the cultivated fields on either shore to a depth of several feet; a vast inland sea is then formed in the centre of China, a few tree-tops and roofs of houses still standing alone breaking the boundless water horizon. When we see that every summer a quarter of an inch or more of sediment is deposited, and the level of the surrounding country raised each year to that extent, we cannot help being struck by the fact that there must have been a vast lake bottom

to fill,—seeing that the soil set free by the erosion of the Szechuan water-courses throughout a long geological period has failed even now to entirely fill up this old lake basin. A few years more of geological time, and this and the other lake basins will be entirely filled, and the whole sediment brought down will be exclusively available for promoting the advance of the coast-line,—an advance even now so rapid that within the lifetime of men now living Shanghai threatens to be left an inland city unapproachable by tidal waters. This first of the lower lake system was formed by the damming up of the river seawards by the limestone range of Wusueh (thirty miles above the present Treaty Port of Kiukiang), and is drained into the basins next below—those of the Nganhui province—by a confined channel cut through the range, through which the river still flows in an accelerated current, much as the Detroit river drains Lake Huron into Lake Erie.

The next lake basin I take to be represented by the plain north of Kiukiang and the valley west of Nganking, together with the Poyang lake region ; this is again bounded seawards by a 'cross range,' through which the river has burst its way in the narrow, winding, rock-infested channel known as 'Hen Point.' Below this again we have the wide plain and ancient lake basin of which Wuhu, now a 'Treaty Port,' forms the centre, its eastern outlet being through the 'gate' known as 'the Pillars.' We then come to Nanking, to the south of which, as of Wuhu, now stretches a wide alluvial flat, the lower portion being still for a considerable portion of the year below the level of the river, and in it are still found extensive swamps, the resort of innumerable wildfowl, and a wide, rich, rice-producing region, providing cargoes for numerous steamers which load at Wuhu for the south. These swamps, in which must be included the shallow Tai-hu or 'Great Lake' of Kiangnan, formed part of the ancient estuary of the Yangtse, what time the river here turned southward and debouched into the Hangchow bay. At present we find these old lakes practically filled up, being ourselves only just in time to see the annual finishing touches given by the summer floods to the land that now occupies their site. Formerly, the bulk of the sediment was arrested in these lakes and the turn of the delta had not yet come. At the same time,

however, we have no reason to expect that, as the land along the banks becomes thus rapidly raised, the inundations will soon cease altogether, natural as this result would at first sight seem to be : for the bed of the river must be rising simultaneously in the ratio of its extension seawards, and thus higher embankments are constantly needed.

Marco Polo, 600 years ago, in his chapter on the 'Great River Kian' says, 'It is in some places ten miles wide, in others eight, in others six, and it is more than one hundred days' journey in length from one end to the other; it seems indeed more like a sea than a river.' Now if, as seems probable, Marco visited the river during the summer floods, there is no exaggeration whatever in these statements, and it is curious to find an acute critic like Colonel Yule explaining away this passage by suggesting that Marco's expressions about the river were accompanied by a mental reference to the term 'Dalai'—'the sea,'—which the Mongols, in whose dynasty Marco visited China, appear to have given to the river. But then Colonel Yule, as a writer on China, laboured under the disadvantage of never having lived in the country, and had never seen with his own eyes the incredible expanses of water through which the river steamers now cautiously thread the channel in the season of the annual floods.

Ascending once more and quitting the alluvial region, we pass between the rock-bound banks which distinguish the river from Ichang upwards to its source; we here ascend by a series of wide steps, well described by the Chinese as 'men-karh' or 'thresholds,' over each of which flows one of the famous rapids—'effrayantes cataractes,' as Père Amand David, the celebrated naturalist, describes them. These steps lead us by way of the great gorges cut through the limestone ranges which bound the province of Szechuan on the east, and which shut in its basin from the wide plains of 'Hukwang' (Hupeh), the province of 'Broad Lakes,' where begins the level country immediately below Ichang. These 'steps' extend all the way from Ichang up to the source, a distance of 2,000 miles, and provide for a rise of 16,000 feet in this distance.

If we turn to a map of Indo-China, we are at once struck with a peculiarity in the Yangtse as distinguished from the other great rivers which, together with it, take their rise near the

eastern edge of the Tibetan plateau. Four great rivers—the Irawaddy, the Salwin, the Mékong, and the Yangtse—here start seawards. All four, in the early part of their courses, flow together in deep parallel ravines running almost due north and south. Upon reaching the south-eastern extension of the plateau where it enters the Yunnan border, these deep-cut defiles approach so close that the distance from one to the other barely exceeds thirty miles, and these defiles, with the ranges that separate them and the dangerous malaria that lurks in their wind-protected hollows, have proved an impassable barrier to free intercourse between the peoples of Burmah and China, thus keeping the two races quite distinct in character; although such has been the conquering force of Chinese civilization that the arts and customs of China have deeply influenced the Burmese, as they have all the other neighbouring peoples of the great Central Kingdom. Under powerful leaders, armies from China have at different times even succeeded in invading Burma, but have never made a permanent conquest,—the wiser rulers of China having been content to leave it finally a buffer, and nominally tributary, state to the Son of Heaven. Following down the courses of the four streams—the Irawaddy, the Salwin, the Mékong, and the Yangtse,—we find that the three former alone continue to follow the prevailing lay of the mountain ranges, and persevere in their southward course to the Indian Ocean and the Cochin-China Sea. The Yangtse—the Murui-ussu or ‘Blue Water’ of the Tibetans, the Kin-sha or ‘Gold-dust River’ of the Chinese—behaves differently. After accompanying its less vigorous neighbours down through nearly ten degrees of latitude, the Yangtse, upon reaching the vicinity of Tali-fu, suddenly recurves northward, abandons its associates and strikes out a course of its own, athwart transverse rows of mountain barriers which fail to turn it aside from its steady progress to the ‘Eastern Sea.’ Owing to this circumstance of its course being mainly in a direction transverse to the lay of the ranges, we find its channel thence down to the point of its emergence in the plains of Hupeh to be a series of zigzags, consisting of a succession of reaches running at right angles to each other alternately, the long reaches SW. and NE., and the shorter reaches NW. and SE. In the former

it runs in comparatively open ravines, parallel to the radial axes of the mountains enclosing it: in the latter it breaks through them in the magnificent clefts of the gorges. The strata in these latter are for the most part horizontal,—or where tilted, are so only in limited areas; in these the folding of the rocks has been beautifully exposed by erosion, the gorges, it can hardly be doubted, having been formed by the cutting back of ancient waterfalls, what time the old lakes were being drained seawards, like as we see to-day in the Niagara river below the existing falls¹. In many of the gorges, and these spots naturally afford the most striking pictures—together with most formidable whirlpools,—we find a sharp rectangular turn such as is only likely to occur where vertical erosion attacks strata generally horizontal; the absence of more extended denudation being very striking, and giving, I should say, unmistakable proof of their comparatively recent origin. The confused mountain mass which separates Hupeh from Szechuan commences a short distance below Ichang, and extends to the city of Kweichow, a distance of 120 miles from east to west. The radial axis of elevation appears to be a mass of igneous rock, chiefly gneiss, traversed by dykes of porphyry in vertical strata. These rocks have not been clean cut like the limestones of the gorges, but have been decomposed by the water, and their débris now towers in gigantic stone heaps, filling up the desert-looking valley which breaks the continuity of the grand limestone gorges of Ichang and Niukan. The difficult piece of river which rushes over and amidst these rock piles is known to the native boatmen as the Yao-tsa-ho—say, ‘Broken-up River.’ This basin of the Yao-tsa-ho is to-day a wide depression filled with scattered rock-piles, in the midst of a surrounding mass of lofty precipitous limestone mountains which form the background to pine-covered foothills of gneiss, which the water has not reached and which afford a contrast by their

¹ NIAGARA FALLS.—The average recession along the whole contour of the Horseshoe Fall has been, since 1842, two and four-tenths feet per year: in the centre of the channel, where the bulk of the water passes, the average yearly recession is four and eight-tenths feet. At the point where the acute angle is formed, the recession from 1842 to 1875 was about 100 feet, and from 1875 to 1886 more than 200 feet. The recession of the American Falls since 1842 has been slight.

verdure to the lower piles bordering the river which the water has denuded and disintegrated. The scene in these reaches is extraordinarily instructive and picturesque. These limestone mountains with their dolomite cliffs and peaks, extend eastwards to the mouth of the Ichang gorge, dipping under the sandstone and coarse conglomerate which form the outlying spurs of the range. The city of Ichang stands upon this conglomerate which, with its superincumbent sandstone, dips in its turn under, and is lost in, the alluvial plain which begins about fifty miles lower down. West of the Yao-tsa-ho basin we again traverse a wide limestone tract, until, on the other side, this meets with and is lost under the new red sandstone plateau of Szechuan. As we ascend the river further we meet, however, with fresh cross ranges of the same limestone formation, upon the flanks of which the inexhaustible coal seams of the province lie conveniently tilted.

Above and beyond Kweichow-fu we enter the 'Red Basin,' so named by Richthofen, where the river traverses the vast new sandstone formation of Eastern Szechuan in a ravine cut down 1,000 feet or more below the surface : and again in short gorges with vertical sides, where the river has cut through the numerous intervening cross limestone ranges. Here, owing to the softer nature of the rock, the rapids are less violent, though there is always a fierce current to contend against. These conditions prevail until we reach the big fork of the Yangtse at Sui-fu (abbreviation of Hsü-chow-fu), where, on the one hand we meet the Kinsha river flowing hence onwards as a mountain torrent through inaccessible gorges, and on the other the Min, which, though the shorter stream, at times brings down as much water as does the main branch, and which, in view of its superior navigability, is regarded by the Chinese as the true 'Kiang,' while the Kinsha sweeps round the 'Terrace of the Sun,'—the wild range inhabited by the independent 'Lolo,'—in a fierce continuous rapid, and is useless for traffic.

By the fork of the Min river we ascend, due north, through a rich deep-red sandstone region, and up a succession of comparatively shallow but steep and often dangerous rapids, to the unique plateau of Chengtu, the political capital of the province. The distance by the Min from Sui-fu to Chengtu is over 200

miles and the difference in level from 600 to 700 feet, giving a fall of over three feet to the mile, Sui-fu itself being 150 miles to the west of Chungking and standing 200 feet higher than that city. Beyond and above Chengtu the Min river, which takes its rise in the Tibetan plateau to the north, 11,000 feet above sea-level, descends in an unnavigable torrent, washing in its descent the walls of the cities of Sungpan (9,500 feet) and Mao-chow (5,000 feet), until it emerges upon the Chengtu plain at Kwan-hien (2,400 feet), the city where the splitting up of the Min into the myriad channels of the Chengtu plain commences. Thus, from the plateau above Sungpan to the plain at Kwan-hien the fall is 9,000 feet in a distance of 150 miles, sixty feet to the mile. To the west of the Min valley the land rises rapidly, past the conspicuous range of the O Shan, the famous sacred Mount Omi, on the right bank of the Min river near Kialing, and 11,000 feet high, up to the 'Great Snow range'—the Himalaya of China—with its peaks rising to 22,000 feet and upwards, which forms the eastern bulwark of the great Tibetan plateau beyond. The alluvial plain of Chengtu, through which now flows a network of clear streams with gravelly beds, appears undoubtedly to have once been a lake whose basin was gradually filled by the boulders and coarser detritus from the surrounding mountains, and the southern wall of which was eventually cut through by the rivers now draining it. Below this we have evidence of the great inland sea that probably in tertiary times occupied the rugged country of Szechuan, subsequent to the deposition of the coal measures with their superincumbent sandstones. Thereafter, as the land rose, the surface of the former sea-bed must have been gradually exposed to denudation, and the channels of the present rivers began to be cut out; and if, as seems probable, a dam then existed on the eastern borders of this sea, it had not been broken through, nor had the gorges, through which the water subsequently escaped seaward, then been opened. Through and across this sandstone plain run, at close intervals, the succession of earlier formed parallel ranges of limestone mountains, all tending in a nor-north-east and south-west direction, and now rising to a height of two to three thousand feet above the sea, forming the 'cross ranges' through which the Yangtse and its affluents now break their way in a long

series of magnificent gorges. The intervening plateaux, originally level, except where tilted against the flank of these 'cross ranges,' have since been worn away by erosion into a fantastically rugged landscape, recalling the picturesque scenery of the Saxon Switzerland, but on a grander scale. Every stream, large and small, has cut its way down and flows in a steep ravine. Hence the land roads, which pervade the country in every direction, are nothing but the usual narrow footpaths broken by a succession of ascending and descending stone staircases, often cut out in the solid rock itself, where they are not paved causeways on the dykes dividing the terraced paddy-fields. It is in spots where the sandstone cliffs overhang the streams, that we find the numerous square porthole-looking entrances to the scooped-out dwellings of the aboriginal inhabitants of the country, cave-dwellings often artistically sculptured, and more solid though less dry and commodious than the cave dwellings cut out of the loess by the present inhabitants of the loess country to the north; for the sandstone of Szechuan is as porous as the loess, but, unlike the latter, is ever saturated with moisture. No trace of the original inhabitants now exists, nor is the date of their extermination now known; they are called by the modern Chinese 'Mantse' or Barbarians, and do not seem to have been akin to the Mantse now living on the Tibetan border-land—a hardy race of mountaineers, far superior to the Chinese in physique, who build their homes in solid stone houses perched upon the summits of the precipitous mountains they inhabit.

Coal, often of unusual quality, underlies the whole sandstone formation of the 'Red Basin,' and ironstone abounds; the coal is exposed in the gorges of the Yangtse and its affluents, where these cut through the cross ranges; it, as well as the iron, is largely mined, through adits run into the mountain side, in the primitive but effectual Chinese way, and forms the staple fuel of the country; the junks in the upper waters all have their brick chimney, and, at meal-times, when vomiting the soft-coal smoke, might well be taken for antediluvian steamers. The disturbed granitic country of the western highlands and Tibet abounds in every description of the precious metals, which are exploited, with more or less success, by thousands of Chinese

bold enough to invade the Mantse country, away from Chinese official protection. The sands and gravels of the numerous rivers when exposed each winter by the draining off of the summer floods, are thoroughly washed by armies of coolies, who have no agricultural work at this season, and so can afford to work for the pittance of gold which they are daily able to collect. The copper supply for the minting of the current coin of the realm, copper 'cash,' of which fifty go to a penny sterling, is drawn from this region which, given modern means of communication, may one day prove its wealth to the outside world.

Having thus sketched the river that dominates the region, we will now proceed to an enumeration of the six great provinces comprised within its limits, and give a short account of their separate characteristics.

CHAPTER V

THE MIDDLE BASIN: PART II. THE PROVINCE OF SZECHUAN

STARTING from the west and following down the course of the Yangtse river, the first province of the middle basin is Szechuan. The name means 'Four Streams,' derived probably from the fact that the four great north and south valleys which comprise its richest agricultural region, and that earliest settled by the Chinese, are watered by four parallel rivers which take their rise in the mountains to the north and debouch into the Yangtse, which flows along the southern frontier of the province: these rivers, which form such a conspicuous feature in its geography, are the Min, the Chung-kiang (or Central River), the Fu-kiang and the Kialing,—the two latter uniting into one stream a few miles above their junction with the Yangtse at the Treaty Port Chungking. Farther to the west are three larger rivers, likewise running in parallel channels north and south—the Kinsha, the Yalung and the Tatu-ho, but these, though larger in volume, are comparatively of small importance, as they flow through the wild mountains of the Tibetan border as unnavigable torrents¹.

The last of these rivers once formed the western boundary of the province, but recently the boundary has been moved farther west until it now includes the right bank of the Kinsha, west of Batang in Tibet: thus the area of Szechuan is now put down as 185,000 square miles and the population at fifty to sixty millions; the valuable and populous half lies east of the Min

¹ The area of the one province of Szechuan is almost exactly nine-tenths that of France, 185,000 : 207,000 square miles, and is nearly double that of Hungary (including Transylvania, 108,000 square miles), a country with which it has not a few analogies in situation and resources. A noticeable coincidence is that the arms of Hungary display four silver stripes to denote its four chief rivers (the Danube, Theiss, Drave and Save), while the name of Szechuan, 四 川, equally denotes its four principal streams.

river, the western half being thinly peopled by aboriginal tribes, and valuable only for its wealth in minerals ; isolated fertile valleys are found amongst the lofty mountain mass which fills this region, such as the Chien-chang valley with its chief city, Ningyuen, in the south, and the rich valley of Yachow in the north. Tarchendo, or Ta-chien-lu as it is written in the Chinese character, is an important entrepot of Tibetans and Chinese, and is situated on the great highway from Chengtu to Lassa, and, as the crow flies, sixty miles west of Yachow, in a valley bottom 8,400 feet above sea-level. About one hundred miles farther west is the frontier town of Batang, built on a small cultivable flat in the valley of the Kinsha, 8,600 feet above the sea ; but to reach any of these places from the east, several high passes, ranging from ten to thirteen thousand feet, have to be crossed, the roads being little more than mule tracks with long painful ascents up the steep mountain sides, often blocked by snow in winter or rendered temporarily impassable by wash-outs in summer. The extreme east of the province enters like a wedge between the lofty Tapa-shan, which divides it from Shensi in the north, and the highlands of Hupeh in the south—these latter a plateau four to five thousand feet in height, with a steep face to the Yangtse valley : this eastern portion is filled with rugged mountains again and is comparatively unproductive and thinly populated. At the western foot of these mountains runs the Pa-shui, which makes the seventh of the rivers that drain Szechuan north and south into the Yangtse ; the Pa-shui unites with the Kialing and the Fu rivers at the mart of Hochow, fifty miles above Chungking. These rivers, all of which take their rise in the snowy mountains which divide sub-tropical Szechuan from the northern provinces of Kansu and Shensi, fall about 500 feet in level in their two-hundred-mile journey athwart the Red Basin ; they are navigable for vessels drawing about two feet of water through the greater portion of this distance, the Chinese boatmen being indefatigable in forcing their boats up and down apparently hopeless rapids ; some of the boats, like the stern-wheelers in the United States, requiring only a heavy dew to float them ; and the traffic on these rivers—coal, cotton yarn, piece goods and coast produce up-stream, and of the local crops, such as sugar, hemp, tobacco, &c., down-

stream,—is unceasing. This rich central portion of Szechuan, 'the Red Basin,' which in comparison with the surrounding mountains is only moderately elevated, say, one to two thousand feet, extends east and west from longitude 107° to $103\frac{1}{2}^{\circ}$, and north and south from latitude $31\frac{1}{2}^{\circ}$ to $28\frac{1}{2}^{\circ}$, an area of 120 miles by 170, equalling 20,000 square miles. The whole of this region, with the exception of the Chengtu plain, which occupies only one-tenth of this area, is exceedingly *accidenté*, with steep ravines and tower-like summits, but is well watered, the rock indeed mostly dripping with moisture, so that the industrious farmers are able to terrace the hill sides to their very summits, and thus produce an astonishingly rapid and varied succession of valuable crops. The principal crops are :—rice,



FIG. 15.—The 'Red Basin' of Szechuan.

wheat, maize, beans, and opium, which alternate in summer and winter, besides sugar, hemp, and tobacco, with quantities of the famous 'T'ung you' or Dryandra oil, together with the produce of the varnish, soap, wax, and tallow trees. Oranges—the mandarin and common variety—are widely grown and exported to Hupeh; the salt production from the famous brine wells is the leading element in the provincial revenues, that and silk, raw and woven, being, with opium, among the leading exports from the province. Szechuan also produces a vast assortment of drugs, collected in the western mountains, of which rhubarb is the most important, and for which Chungking is the entrepot.

The climate of the Red Basin is warm and damp ; there is practically no winter, frost and snow being unknown except on the hill-tops, their place being taken by drizzling rains : thus the country is always green and never without crops ; no sooner is one crop ready for reaping than another is seen sprouting in the intervening furrows ; the rains in summer are heavy and continuous, causing the summer freshets in the rivers, and a rise of the Yangtse at Chungking in August of seventy feet and more, with an increase in the width of the river at that point of from 500 up to 1,000 yards ; not seldom these rains produce serious landslips, blocking the streams and washing down the soil from its rocky background, which then has to be toilsomely replaced by the untiring farmers. Cesspool manure is carefully removed from the many populous towns, and carried up to the hill summits, whereby rotations of five and six crops in a year are rendered possible. As in the north the Chinese from Chihli and Shantung are carrying on a steady peaceful invasion of Mongolia and Manchuria, so here the Tibetan border is being steadily invaded by the agricultural Chinese, who are gradually driving back the warlike border tribes and relegating them to inaccessible and unfertile highlands. The most interesting feature in the agricultural development of the province, and the one most worthy of special study, is the exploitation of the old lake basin in which stands to-day the capital, Chengtu, at a height of 1,700 feet above sea-level, and the only piece of level land in the province. Though apparently level to the eye, this old lake bed has a natural slope, north and south, of 700 feet ; we reserve a special description of this unique plateau for a new chapter.

The history of the province has, like indeed that of all the other provinces of this vast empire, been a chequered one, and to give it in detail would require a volume, as does the history of a European kingdom, many of which this one province surpasses in dimensions, and all of which it excels in productiveness. It would appear to have been first occupied by Chinese from Shansi in the third century B.C., and to have been finally subdued by the Han, B.C. 206 to A.D. 220, who, at their capital, Chang-an, now Si-an, drew their wants in sub-tropical fruits and produce and in rice, the luxury of the north and the necessary of

the south, from that region. Upon the defeat of the Han in the latter year by the founder of the dynasty of Wei, the last scion of the house of Han migrated to Szechuan and there established the shortlived dynasty known as the Shu-Han or Szechuan-Han. This prince, the famous Liu-pei of the 'Three Kingdom' period, together with his son and sole successor who is known as the Hou Chu, or 'After Lord,' ruled Szechuan as an independent kingdom from A.D. 221 to 263, after which date the three kingdoms of Shu, Wei and Wu were merged in a once more united empire under the dynasty of the Western Tsin. Liu-pei's grave is still green just outside the walls of Chengtu,—a tree-covered mound standing in the grounds of a beautiful temple erected in his memory, and which is still maintained in perfect repair. The province seems to have pursued a career of long-undisturbed prosperity, self-sufficing, producing every natural product that the necessities or luxuries of mankind can demand,—shut out in a Rasselas valley, as it were, from the seething outside world, and enjoying a soft, almost windless, climate and an inexhaustible soil. But, during the fifty years of turmoil (circa 1620 to 1670 A.D.) that accompanied the revolution which began with the destruction of the 'Ming' and ended in the conquest of all China by the 'Tsing' or Manchu dynasty—Shunchih, the first actual Manchu ruler, ascended the 'Dragon Throne' in 1644,—the then inhabitants of Szechuan were almost totally exterminated. When a dynasty in China becomes effete and is in the throes of dissolution, and no dynasty in modern times has reached a life of three or four hundred years without this ending, rebellions spring up all round, leaving the best man to win when—after two or three generations of intermittent anarchy reducing large portions of the empire to a condition not unlike that of Germany after the 'Thirty Years' War'—exhaustion supervenes, and a new dynasty is accepted as the decree of Heaven. A noted rebel of these times was a man from Shansi, named Chang Hien-chung, who invaded Szechuan, carrying all before him. His rage against the unfortunate Szechuanese, who appear then as now to have held an exceptional reputation for treachery and deceit, was such that he deliberately set about massacring the whole population, making piles, it is said, of the small bound feet of the women.

A stone tablet exists in Chengtu to this day, on which is engraved the Chinese character 'Sha'—'Kill,' written by the monster's own hand: it stands walled in, in a back court of the Treasurer's Yamen, and tradition asserts that should this record be again exposed to view, new massacres will take place. The present population are all descendants of immigrants from the east, a fact that is impressed upon the inquiring traveller to-day, for, when he makes the customary complimentary query, 'Where is your honourable home?' the reply invariably is, 'Hupeh,' 'Kiangsi,' &c., as the case may be; and after the first surprise, he learns that the respondent's ancestors immigrated two hundred or more years back. One party of immigrants, 'Hakkas,' from Kwangsi, has still descendants occupying two districts fifty miles west of Chungking, who are distinguished from the remainder of the inhabitants of the province by their women having natural unbound feet, as have their relatives in the south at this day. Since the final conquest of the province by the 'Ta Tsing' (Great Pure) dynasty,—which is emphasized in the large (but now totally effete) Manchu garrison, inhabiting a quarter of its own within the walls of Chengtu city, the pensioned descendants of the original invaders,—the province has been undisturbed and is now suffering from over-population and concomitant poverty of the lower classes, while a large upper landowning class displays ample wealth. The isolation of the province which proved its ruin and impeded the escape of its people in the seventeenth century, proved its salvation in the nineteenth, when, in the fifties, the Taiping rebels made their famous march west under the great leader, Shih Ta-kai, the 'I Wang' or 'Prince of I': his army of 300,000 men, flushed with their victories in the neighbouring province of Hupeh, marched south of the Yangtse, which, for want of boats they were unable to cross until, marching on and on over the mountains along the right bank of the river, they first succeeded in seizing boats at the ferry of Hui, opposite the Chien-chang valley: they ascended this valley, the Government troops sent against them from the capital, Chengtu, retreating as they slowly advanced, until they lost themselves in the mountains or perished in crossing the fierce torrent of the Tatu-ho, the remnant proving an easy prey in the defiles beyond. Shih

Ta-kai was taken alive, carried to Chengtu and there executed ; as the imperial commander himself said to me :—‘ Had the Taipings succeeded in crossing at Sui-fu, which without boats they were unable to do, he could not have stopped them ; the rich Red Basin would have been once more ravaged and the whole empire would probably have fallen into their hands’ : Heaven, or good luck rather than good management, seems in this, as in their wars with the outer barbarians, to have given the effete Manchus a fresh lease of life. Several small later anti-missionary rebellions have been successfully crushed, and the rich province again enjoys ‘ great peace.’

Chungking was opened as a Treaty Port in 1890, since which its trade has steadily increased until this emporium, with the impending development by European capital of the rich mineral country beyond, promises, as the French say, to become the Lyons of China ; or, as the Americans say, another St. Louis, its situation at the junction of the Yangtse and Kialing rivers being analogous to that of the latter city at the junction of the Mississippi and Missouri. The province is further conspicuous for the number and grandeur of its temples and monasteries, many richly endowed with broad lands under the Han and Tang dynasties, and, in later days, the Buddhist monasteries especially, by the pious Ming emperor, Wan-li (A.D. 1573). Under the Mackay Treaty, signed in Shanghai in 1902, a second Treaty Port, Wan-hien, situated two hundred miles below Chungking, will be opened for foreign settlement. One of the chief staples of the trade of Wan-hien at present is paper, manufactured from the luxuriant bamboo groves in its vicinity, junkloads of which are shipped down river, notwithstanding that a new dangerous rapid was formed in 1896, owing to the sudden irruption of a gigantic landslide, which narrowed the river to one-third of its previous width and is proving a serious impediment to navigation. Whether the Chinese will aid in the clearing of this ‘ heaven-sent ’ barrier, and so facilitate navigation by steam, as well as by junk, or whether the real opening of Szechuan will have to wait for the construction of a railway athwart the rugged mountains of Hupeh (or by way of the Shensi border), time will show. To foreigners residing in the country the inaccessibility of this rich region is but a stimulus to exertion to overcome it.

Wan-hien, besides being an important trade mart and shipping centre, has pre-eminent claims upon lovers of the picturesque, its site being one of the most beautiful of any city in the world. Surrounded by distant ranges, rising to three and four thousand feet, it stands itself in the midst of a broken sandstone basin, through which the great river has cut its way in a graceful curve, leaving a deep bay for a junk anchorage sheltered from the velocity of the main current. In the basin stand many isolated sandstone peaks: one, known as the 'Heaven-born fort,' towers over the city to a height of 1,200 feet, its sides being almost vertical and accessible only by long flights of steep stone staircases. The summit is flat and is about twenty acres in extent: it is walled round, admittance being through an arched gateway. This natural city of refuge is inhabited by several families of 'gentry,' and possesses an unfailing water supply derived from copious springs; while, perched high in the air, it forms a most salubrious residence. Wan-hien is the first city of importance reached after the great rapids of the Yangtse have been surmounted, and will doubtless, ere long, be the terminus of steam navigation for the easier stretch of 400 miles of comparatively smooth river beyond. A wide coal-field stretches almost immediately in rear of the city, a soft coal of excellent quality and cheap. Wan-hien may be called the Gate of the Red Basin, all produce up and down having to pass its doors, the only other means of access being by the land roads in the north leading over steep mountain passes into Shensi and Kansu. It is the landing-stage for the numerous officials constantly travelling between the metropolitan and provincial capitals. The 'Great Northern Road' through Shensi by which this journey used to be made having been abandoned for the more convenient route via Shanghai—by rail from Peking to Taku, thence by steamers as far as Ichang, thence on by junk to Wan-hien, and thence again in chairs, sixteen days' overland journey to Chengtu—these three stages thus occupy forty days, as against sixty for the 1,500 miles by the all-land route, viz. 2,000 miles by steam in ten days, 200 miles by junk in fourteen days, and 300 miles by chair in sixteen days. On the opening of the Pe-han railway from Hankow to Peking, this time will be farther reduced to about thirty-three days. These details

emphasize the seclusion of Szechuan from the outer world ; four weeks is the average time for a quick winter journey from Shanghai to Chungking ; in summer, in unfavourable seasons, I have known the same journey to occupy four months.

From Wan-hien eastwards, down to the Hupeh border, a distance of 100 miles, the river flows through a poor mountainous country, the inhabitants of which depend chiefly on their scanty crops of beans, maize, barley, and potatoes for subsistence. At the head of the great Feng-hsiang—the gorge of the ‘fearsome pool,’ sixty miles below the ‘New Great Rapid,’ stands the frontier customs station of Kweichow-fu, once one of the richest and gayest cities of the province, due to the great revenue collected there before the ‘foreign’-managed Imperial Maritime Customs at the Treaty Ports of Ichang and Chungking replaced it. It is now a decaying city, noticeable chiefly from its great walls and magnificent situation, a calling-place for all upward and downward-bound junks and a station for the inspection of their cargoes by the officers of the Likin (inland barrier tax office). The frontier line between the two provinces of Szechuan and Hupeh is met in the centre of the twenty-two miles long ‘Great Gorge of Wushan,’ which it traverses at right angles at points where narrow ravines emerge north and south upon the Great River. The spot is noticeable as the eastern terminus of a road, following the banks of the Yangtse, destined to form a new and practicable land connexion between Ichang and Wan-hien. The Szechuan half was completed at great cost ten years ago, the road through the gorges being carried high up in galleries excavated in the hard limestone cliffs that here form the banks ; the Hupeh portion is wanting, the Viceroy Chang-chih-tung, after the work had been sanctioned, as is so often the case in China, declining to provide the funds—funds more urgently needed for his unprofitable industrial experiments in Hankow. Thus this fine road now ends in a cul-de-sac, high up in the cliffs of the Wushan gorge, and is useless for through traffic, while the local traffic in this wild region is practically nil. One more fresh hope of shortening the time for reaching Szechuan from the east has, like that of regular steam traffic, which was inaugurated by the voyage of the *Leechuen* in 1898, been again relegated to the dim and distant future.

CHAPTER VI

THE MIDDLE BASIN: PART III. THE CHENGTU PLATEAU

THIS unique area of level land in the wide, otherwise purely mountainous, region of Szechuan cannot be passed over in a general description of the province, but demands a short essay to itself, so important is its relation to the rest of the province and so peculiar are its characteristics in China, and, we may confidently add, in the world at large. There are other lake basins now dry and converted into fertile agricultural land, but we know of no other similarly isolated basin, unless it be that of the Great Salt Lake in North America, that depends for its perennial fertility upon a so complicated and original system of artificial irrigation as that which we see to-day exhibited in the Chengtu plain. This plain is, roughly speaking, a parallelogram measuring some seventy miles south-west and north-east by about forty miles north-west to south-east, thus possessing an area of about 2,800 square miles—just that of County Cork in Ireland, and little more than half the area of the one county of York in England, but probably the most highly productive and thickly populated piece of land of its size on the surface of the globe: the population of the county of London may possibly be still closer packed, but there is no comparison in the relative productiveness of the soil, due, in the case of Chengtu plain, to its artificial enrichment by the return to the soil of all the refuse matter emanating from a dense population, coupled with a system of irrigation the most elaborate conceivable. But for the irrigation works we now proceed to describe, the southern portion of the plain would be a marsh and the north a desert of boulders: the floor of the old lake bed is composed almost throughout of boulders and pebbles brought down by numerous rapid mountain streams from the high range bordering the plain on the north-west, and which, previous to the introduction of the present artificial channels, were everlastingly changing their courses and so leaving no portion of the plain uncovered





Bridge on the Chengtu-Tibetan Road, crossing irrigation channel—
partly natural, partly artificial.

by the rough débris; upon this unfertile but natural drainage-giving floor has been built up a layer of fertile loam, the product of sewage matter diluted by the annual vegetable decay. Now we find innumerable water-channels lined with trees, chiefly poplars, and farmhouses and residences so thickly stud the plain that they appear almost continuous; numerous fine temples and well-endowed monasteries, surrounded by spacious groves of tall forest trees and bamboo thickets, are constantly in evidence, while the whole plain and surrounding hills afford a pleasing contrast to the tree-denuded slopes so common throughout China generally. Indeed, looking down on the plain from the neighbouring mountains, one might imagine it covered with a continuous forest growth, the agricultural fields being entirely concealed under the foliage. The crops themselves are those common to sub-tropical China, rice being the staple, preceded by the poppy and rape flower, and followed by maize, wheat, barley, buckwheat, beans, and tobacco; patches of sugar-cane, cotton, aconite, saffron, madder, egg-plant, &c., also abound, as well as plantations of oranges, persimmon, and other fruit-trees, with market gardens producing the best flavoured vegetables in China.

The irrigation system that thus makes the Chengtu plain the garden of Szechuan has its source in the range of mountains that bound the plain on the north and west; this range, well named by the Chinese the Ching-Cheng-shan, or 'Azure Wall range,' actually fences in the plain like a wall, limestone cliffs descending into the level ground which is cultivated up to their very feet. Through this wall break, in gorges and narrow valleys, the rivers and mountain torrents from which the irrigation of the plain is drawn. During the summer the great rush of water down these streams is shown by the wide sand and shingle banks deposited on the fields in places where the embankments have given way. The 'Azure Wall' as seen from the plain appears to be from two to three thousand feet in height, but on mounting the wall through one of the many passes, one sees behind range upon range more than double the height of the front wall, and behind these again snowy peaks rising to twenty and more thousand feet, the foot-steps of the north-eastern extension of the Tibetan plateau beyond. This latter pastoral plateau, ranging about

11,000 feet above sea-level, forms the limit of agricultural Szechuan on the north as does the Tibetan plateau proper on the west; and on it the rivers that go to irrigate the Chengtu plain take their rise, and after traversing the plain in myriads of channels are ultimately absorbed in the bosom of the mighty Yangtse. Of these, the chief are the Min river, which, coming from Sungpan, debouches into the plain at Kwan-hien situated in its north-western corner, and the Shih-chuen (Rocksprings) river which debouches near An-hien in the north-east. Still further east the wall is again broken through by the important Siao-ho (Small River), so called, that takes its rise in the snow-covered 'Shüeh-pao-ting,' and, flowing past the prefectural city of Lungan, enters the plain at Chiang-yü and forms one of the three main forks of the widely navigable Kialing river, which joins the Yangtse at Chungking. But this river cannot be said to irrigate the Chengtu plain proper; it irrigates a smaller similar plain to the east, separated from the main basin by a range of low foothills running at right angles to the 'wall,' and known as the 'Pa-tse' or 'Expanses' of Mienchu and Chung-pa-chang (Central Plain Market).

On the south and east the old lake basin is shut in by low rolling hills, composed mostly of sand and gravel but, with careful manuring, bearing fair crops of barley, maize, and sweet potato. Behind these the true red sandstone reappears, water-worn into scarped ravines, terraced valleys and flat-topped pinnacles, having the air of being crowned by artificial fortresses. On numbers of these summits 'Chai'—elaborately walled-in enclosures of masonry, pierced by arched gateways—have been built, cities of refuge to the inhabitants of the valleys in times of political disturbance. Behind these again are the true mountain ranges,—those long parallel limestone chains, rising from two to three thousand feet, that traverse Eastern Szechuan from south-west to north-east, often running for many tens of miles in an almost straight line, their crests showing a level sky-line, hardly interrupted by a single prominent peak. Their flanks are steep, and form dividing walls to the fertile terraced expanse of broken steeply accidented red sandstone valleys that lie between them. Through three of such ranges the reunited drainage of the plain makes its way to the Yangtse river, some

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View of the Min river above Kwanhien, showing division of river into two channels by means of strings of boulders encased in crates of plaited bamboo; moveable 'barrage' in position above formed in the same way with the addition of piles.



View of the Min river as it emerges from the Azure Wall range, showing the temple dedicated to Liping, initiator of the Kwanhien Hydraulic Works, about B.C. 250.

two hundred miles to the south, in two channels: the one, the Min, which unites with the Yangtse at Sui-fu, there nearly doubling the volume of the main stream coming from Yunnan and the Far West: the other, the Chung-kiang, or Central River, a body of less volume but navigable by light draft boats throughout the greater part of its course, falling into the Yangtse at Luchow, an important mart and *dépôt* for the produce of the celebrated Tze-liu-ching salt-wells, situated a few miles above the point of junction.

The main roads by which the traveller approaches Chengtu, the great city of the plain and the capital of the province, up and down the steep stone staircases which form the high-roads of Szechuan, everywhere except in the 'Pa-tse' we are describing, viz. that from Chungking in the south-east (300 miles), that from Si-an in the north-east (700 miles), that from Wan-hien in the east (400 miles); all fall to the plain by a steep descent, the view from the summit in each case suggesting unmistakably the idea of an old lake basin at one's feet. This is due to the abrupt contrast between the flat plain, apparently level as a billiard table, and the steepness of the gorge through which the path falls to the very edge of the plateau. But the plateau, in reality, is not level; it has a slope from north to south of 700 feet, the level at Chengtu in the south being 1,700 feet above the sea, and at Kwan-hien, forty miles to the north-west, 2,400 feet. This steady fall greatly facilitates the irrigation, besides adding to the picturesqueness of the scenery by necessitating innumerable dams and overflows to regulate the rapid currents of the watercourses, and, as we shall see, has been taken advantage of in a masterly way by the famous hydraulic engineer to whose genius the inauguration of the system is due.

It is from Kwan-hien that the main irrigation takes its rise in the Min river, which descending from the high plateau to the north (12,000 feet) and flowing past the border city and flourishing mart of Sungpan (9,000 feet) here emerges on the plain, having fallen 9,000 feet in a distance of 200 miles. Even in the dry winter season the Min at Kwan-hien is a stream of considerable volume, about fifty yards wide, over a fathom in depth and flowing with the torrential current which the above heights impose; in summer the boulder bed of the river, here

half a mile in width, is entirely covered, and, at the height of the monsoon rains, becomes a vast torrent threatening to sweep everything before it. To regulate such a river, tame its violence, bring its vast force into subjection, and make it a boon in lieu of a curse to the plain it flows through, would severely tax the capacity of one of our twentieth-century engineers ; yet a simple Chinese prefect of the almost mythical period of the Tsin dynasty (B.C. 255-206) did not hesitate to tackle the problem which his successors have brought to such a marvellously successful issue. It is not without a feeling of emotion that the Western traveller of to-day stands on the site of Li's first work, the gorge cut through a foothill of the ' Azure Range,' which turns back half the volume of the Min away in a north-easterly direction, while he looks down on the rushing waters below, and upwards to the temple which commemorates the great author of the work and his immortal labours 2,100 years ago. LI PING, the first ' Tai-shou ' or hereditary governor of Chengtu, who was appointed by the ' Tsin ' after the armies of the ' First Emperor ' had invaded and overthrown the aboriginal kingdom of Shu (B.C. 215)—the name by which the whole province was known subsequently in the Han dynasty—is said to have designed and begun the work which was finally carried out by his son whose surname alone has survived to posterity, hence he is designated simply as LI Erh-lang—literally, LI the second gentleman, or, as we should say, LI the Second. This second LI has likewise been canonized and his image is ensconced in another and newer temple, one of the most magnificent in the empire, the successive pavilions of which rise tier above tier up the steep bank of the Min, a mile above the city wall of Kwan-hien ; the pavilions are solidly built, adorned in the highest decorative style of Chinese art, and, above all, kept in perfect repair. New honours and titles have been conferred on the hero by emperors of successive dynasties, all which are duly recorded in his temple. Conspicuous amongst the many elegant inscriptions cut in stone with which the temple is adorned, is the dictum, attributed to Li, ' Shên t'ao t'an ; ti tso yen,' ' Dig deep the bars ; Keep low the dykes,' i.e. Keep the water at a constant level. This maxim has been religiously observed in Szechuan for the past two thousand years ; pity that it has not been similarly observed in the north,

where the frequent breaking through its banks has given to the Yellow River the name of 'China's Sorrow.' Doubtless the religious sanction given to Li's teaching by Imperial Edicts—the 'Bulls' of successive emperors, the Popes of the Chinese people—has been effective in assuring the literal observance of the 'Saint's' precepts; anyhow, during the long succession of years since Li's death, through all the changes of dynasties and political turmoils of which Szechuan has been the scene, we read, in the native history of the province, that the annual alternate damming of the rivers and the digging out of their beds—which may be seen in operation to-day in the winter season—has never been pretermitted; and this while throughout the empire generally all the great works of old have been ruined by neglect and suffered to fall into irreparable decay. Witness the grand canal in Kiangsu—the glory of Kublai Khan,—the Yellow River, the network of water-courses that pervade the great plain of Chihli, the neglect of the post-roads and the dilapidated condition of public works everywhere, culminating in the filthy condition of the capital, Peking, and the collapse of its once elaborate drainage system, since the advent of the warlike but barbarous Manchus two hundred and fifty years ago. The distinction is probably due to the absolute dependence of the five millions of people on the Chengtu plain upon the minute organization of their irrigation system, to the pressure they are able to bring upon their rulers—the Provincial capital being in their centre—and their willingness to tax themselves or allow themselves to be taxed for the work. [Cf. Diagram on p. 89.]

It is not until after the advent of the Mongol dynasty to the throne of China that we read of any additions to Li's great work; during the intervening fourteen centuries the annual necessary repairs to the channels would appear to have been faithfully attended to, but the local history mentions nothing of importance until we reach the commencement of the Mongol rule (A.D. 1280–1368), at which time we learn that the Provincial Judge of the period (a learned Chinese 'Don' probably, equally capable of leading an army or damming a river at a minute's notice), sought to control the forces of nature, while at the same time he propitiated the invisible powers, by having a tortoise

cast in iron and weighing forty tons which he fixed in the bed of the river and thereby kept back the flood. But he did more than this ; he lined the dykes with quarried stone, stopped up the interstices with molten iron, made a cement of lime and oil from the Dryandra tree (the well-known T'ung you) with which he caulked the stone facings of the embankments and prevented leakage through them. He also planted willows and briar shrub, 'thick as the teeth of a comb,' to ensure their durability. Where a stream was divided off into two channels he erected flood-gates by which the water could be diverted to either channel separately. In fact 'he did all that wisdom could devise or strength carry out.'

This artificial multiplication of the channels is the striking feature of the system. The main stream is first carefully embanked and then an arrow-headed tongue of boulders from the river bed is built up in mid-channel ; this tongue is formed of boulders encased in open wickerwork formed of plaited strips of bamboo, each crate so formed having the appearance of a Brobdingnagian sausage, some thirty feet in length by two in diameter, and which it needs a big gang of men to place in position ; these are piled one above another, after which no rush of water appears capable of dislodging them ; the friction of the pebbles carried down by the flood does indeed in time wear through the bamboo network in places, but all such damage is made good each winter when the water falls, and it is astonishing to see how effectively these seemingly fragile makeshifts succeed in permanently resisting the heavy summer freshets. On either flank of this tongue new channels are dug out and carefully bunded. Then lower down, say at a distance of a couple of miles, the two original channels are again subdivided into four, and so on *ad infinitum*, until, where the multiplied small channels have attained the dimensions of a brook that one can leap, the whole watercourse is floored and embanked with slabs of limestone and the current diverted to irrigate some individual farmer's fields, who himself controls the irrigation of his land by private sluices. At the original subdivision of the main stream, the caisson by which the water can be shut off from, or laid on to, the right or left system of channels as the case may be, is constructed out of a similar pile of bamboo crates which



Near view of 'barrage' in position, shutting out the water from one of the two channels into which the river is here divided.



First breach in the 'barrage' at Kwanhien (to be followed by its total removal), whereby the waters of the Min are admitted into the hitherto dry North-eastern irrigation system. This 'barrage' is removed each year in April and replaced again in November.

has to be shifted at the low water season by coolies working in the water. But the Chinese engineers do not place their reliance in crates of boulders alone, nor in iron tortoises and bronze oxen, efficacious as these are believed to be in maintaining embankments throughout the empire generally; dangerously exposed corners have an additional protection of cedar piles and balks of elmwood, besides, in places, huge cut stone slabs morticed together by iron clamps.

We next learn of a great flood having necessitated extensive improvements in the time of the Mings—that pure Chinese dynasty that succeeded the Mongol and is still more celebrated for its public works and roadmaking. In the reign of Kiaching the officer in charge caused a pair of oxen to be cast weighing twenty-two tons apiece; these he erected on the dyke placed together in the shape of the ‘character’ MAN (人), the head and tail meeting. Mr. Vale, of the C. I. Mission, from whose translation I borrow these facts, tells us in a quotation from the ‘Chen-liu Record’: ‘When water is brought in conflict with any substance the heaviest prevails; it is possible to collect together myriads of stones but you cannot unite them in one body, but tens of thousands of “catties” of iron may be melted and thus united in one; being united it makes one solid weight than which there is nothing heavier. When water is brought in conflict with such a weight it rebounds and divides itself into many streams; divided thus, its strength is weakened; in this weak condition even bamboo, wood, or sand may resist it; thus, though there is nothing more swift than the waters of a dyke, yet there is no better way to cope with it than by using iron.’

And so, in the reign of Wan-li in the same dynasty, the governor ordered that thirty iron pillars, each ten feet long, should be added to the dyke at Kwan-hien. The work occupied six months; eighteen tons of iron were used and the expenditure amounted to three hundred catties of gold (£1,550). The repairing the damage caused by a previous flood cost, we are told, 253,000 days’ work, say, the labour of 1,000 men for 253 days, which, at fourpence per man per day, would amount to the, for China, large sum of £4,217. The chronicler goes on to say that the present system of enclosing boulders in bamboo crates dates

from the time of the emperor Wan-li of the Ming dynasty (acceded A.D. 1573). Iron tortoises and bronze buffaloes are no longer employed, though these seem to have been popular throughout China up to 'Ming' times: the great dyke of the main Yangtse river which protects the country extending along its banks from Shashih to Hankow, a distance of two hundred miles, where in summer the vast agricultural plain lies twenty feet below the river level, is also graced with these antediluvian looking monsters: but in Kwan-hien to-day money is better spent in careful repairs to the embankments, at an annual cost of only some two thousand taels. A special tax to provide this modest sum is levied upon the districts using the water, and the maintenance of the system is under the charge of a special 'Water Commissioner,' appointed by the Viceroy of the province. The allotted amount may, of course, be largely exceeded in years of exceptional freshets; one year's flood repairs cost £4,000, although the current official allowance for digging out a square 'chang' is only ten cents, equal to about one penny the cubic yard. There is not much room for official 'squeezing' here. Evidently the work of irrigation at Chengtu is well done and honestly done; local repairs lower down are usually carried out by the farmers at their own cost, either jointly or individually. The annual opening of the dyke takes place at the time of the Ching-ming feast, which coincides with our Easter and is attended with great ceremony. The intendant of the circuit (Taotai) then proceeds in state to Kwan-hien and first inspects the repairs; after inspection of these and the dyke, worship is solemnly offered up in Li's temple; on the following day the Taotai with his retinue of officials proceeds to the entrance of the dyke and superintends the removal of the barrier by the workmen, whereupon the surplus water rushes in from the main stream of the Min river, through the gorge cut by Li Ping into the north-east channel, and proceeds to fill the irrigating channels of that system; after these are fully supplied the water is again diverted to the south-east system. Later in the year, when the monsoon rains have yielded a superabundant water supply, all the channels are left open and the whole plain is musical with the sound of flowing water and miniature falls. In Chungking, in the early spring, before a true rise in the river

has begun and the water is still transparent blue (a striking contrast to its thick chocolate colour in summer), a slight rise of a few inches, disappearing again the following twenty-four hours, often occurs, whereupon the boatmen tell you, 'They have opened the dams at Kwan-hien': the distance by water from Kwan-hien to Chungking being nearly eight hundred miles, with a fall of about eighteen hundred feet in the river bed. The normal rise of the Min at Kwan-hien is about ten feet; should the rise exceed this figure disaster ensues, as the water then overflows the dykes. The water-gauge in Li Ping's gorge is marked up to twelve feet, Chinese, only (= thirteen and a half feet, English). At Chungking the normal summer maximum is seventy feet, while a rise to ninety or one hundred feet may be looked for about every seventh year; but the upper Min is only a minor contributor to the rise at Chungking; the Yangtse at this point receiving not only the whole drainage of the region to the north of Chungking, but that of northern Yunnan and the whole south-west in addition.

The admirable system of irrigation described above has resulted, not only in converting a stony plateau into fertile agricultural land, but it has made this land, favoured by a warm sub-tropical climate, almost twice as productive as ordinary irrigated land elsewhere, as much as five crops of varied produce being culled on some mixed farms in one year. Consequently, rice-land in the plateau (upon which several intermediate crops are grown) is worth £70 an acre, as against about £40 round Chungking, the ratio of relative productiveness being as seven to four, and this irrespective of the rainfall. The production of paddy at Chengtu is four to five tons per acre (valued at £15), as compared with two to three tons in other rice-growing districts. M. Eugène Simon, in his *Carte agricole de l'empire chinois*, places the proportionate production of the Chengtu rice-fields and those of Hupeh as three to one, but this is manifest exaggeration. In Szechuan the landlord and tenant divide the produce equally, whereby in normal years the former receives eight per cent. interest on his investment.

Below is a sketch of the ancient city of Kwan-hien—'Barrier City,' so called from the fortresses built at the mouth of the gorge of the Min against the incursions of the nomad tribes of

the high Kuku-nor plateau to the north of Sungpan. It is at this point that the Min river, which rises about one hundred miles north of Sungpan, and which is considered by the Chinese

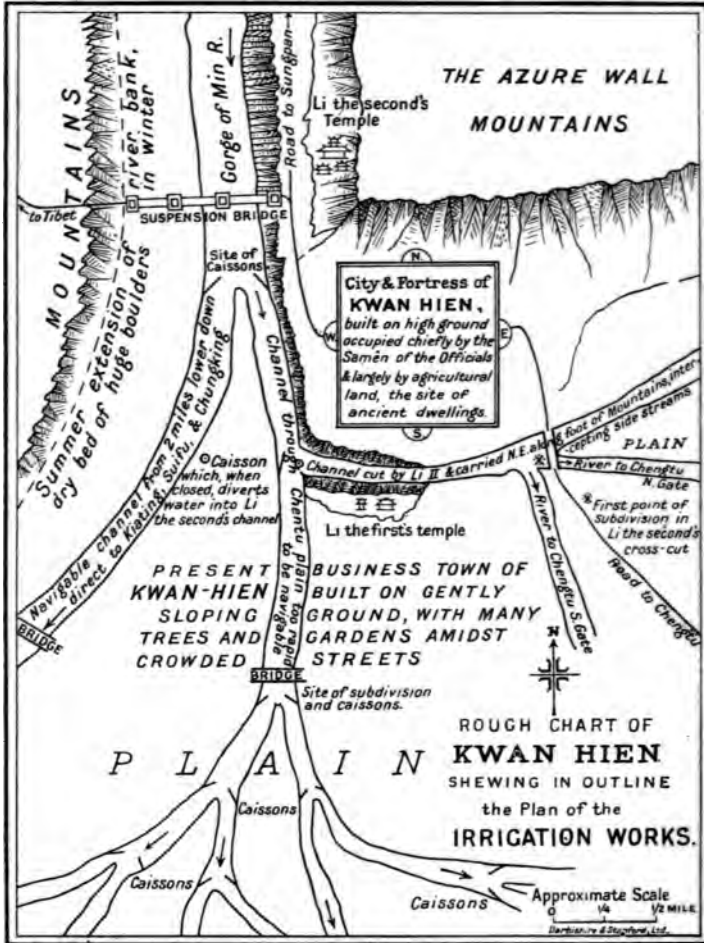


FIG. 16.—Map of Kwan-hien.

as the true source of the Yangtse, breaks through the 'Azure Wall' and emerges into the Chengtu plain.

Mr. Consul Litton, in his report to the Foreign Office, where he gives a minute description of the hydraulic works, which

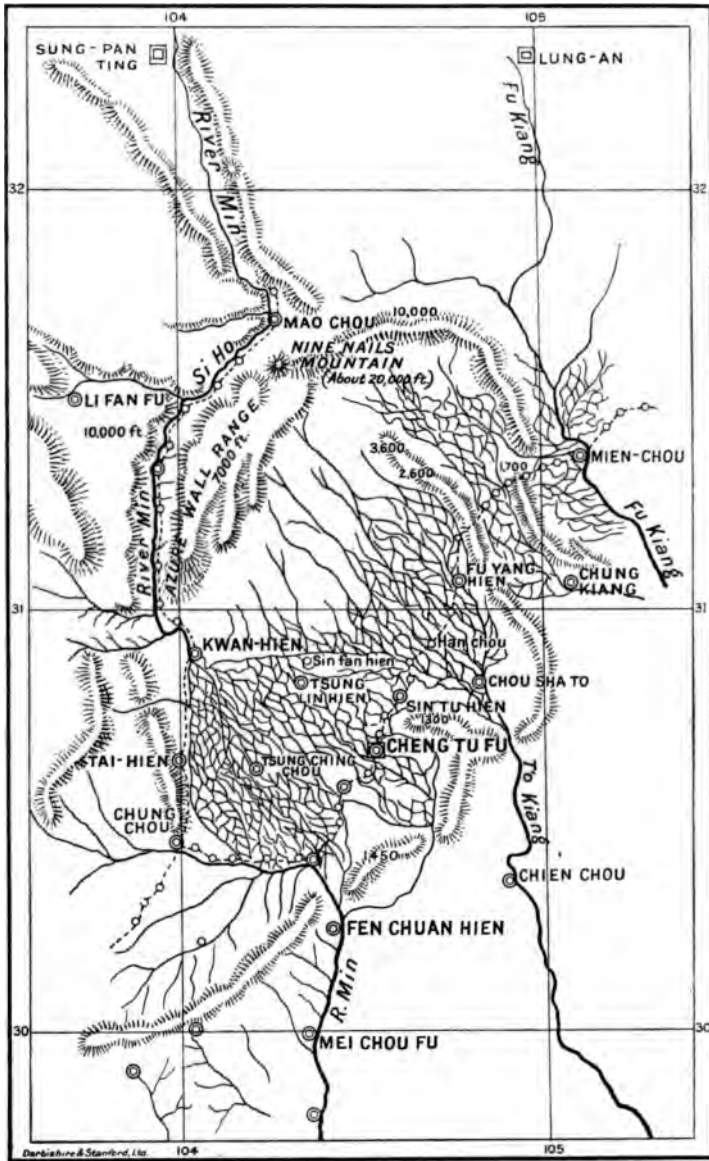


FIG. 17.—Map of Chengtu with Irrigation Channels.

he says, deserve for their ingenuity, simplicity, and utility to be ranked among the first public works of China, makes the following interesting remarks :—

‘The objects which the ancient engineer seems to have set before himself were :—(1) To prevent an excessive rush of water down the rest of the plain ; (2) to irrigate the north and centre of the plain ; (3) to effect this by connecting the watersheds of the Min and Lu (the Chung-kiang or Central.River ?) rivers by streams across the plain.’ He adds—‘Between Hanchow and Chengtu, a distance of thirty miles, no less than fourteen bridges are crossed, and I gather that some of the streams which they cross are artificial, but they are all banked up, in some places with earth dykes and in others with stones plastered together or packed in bamboo baskets, to such an extent that it is impossible to say which are natural and which are artificial channels : besides the main stream, there is a great network of deep cross-ditches, averaging five yards broad, by which water is conducted to every field that requires it ; at frequent intervals water-gates with low dams are erected by which the water when it fills to a certain level shuts itself off.’

And now we will leave this survey of the great work of Li Ping and his nameless son, the ‘Lord of Streams’—‘Chuan Chu,’ with his sacred maxim, visible to this day cut deep in a granite rock above the gorge—**深淘灘低作堰** ‘Dig deep the bars ; Keep low the dykes,’ and resume our course down the Yangtse to the sea.

CHAPTER VII

THE MIDDLE BASIN: PART IV. THE LOWER YANGTSE PROVINCES

THE province of HUPEH, the second on our list, comprises in the main the lower Han valley in the north and the middle Yangtse valley in the south; the two valleys being divided by the range of the wild Tapa-shan, the same mountains that divide Szechuan from Shensi and which, in their prolongation eastwards, finally subside under the alluvial plain of the Hwai river. It lies between the thirtieth and thirty-second parallels of latitude and between seven meridians of longitude (109 to 116), the total area being 69,000 square miles, carrying a population generally estimated at 30,000,000 souls. Hupeh, literally translated, means 'North of the Lake,' the Tungting being the lake alluded to; the province by which Hupeh is bounded on the south being Hunan, meaning 'South of the Lake,' while the two provinces together are known as the Viceroyalty of Hu-kwang, meaning 'Lake expanse,'—the ancient name of this region. The country here formed in prehistoric times a vast lake which the Yangtse had to fill up before it commenced to form its present delta. Hupeh may then have meant northern lake (expanse), and Hunan, southern lake (expanse). One half of the area of the province, the thickly populated central portion, an ellipse the two foci of which are the great marts of Shashih and Hankow, is an alluvial plain once a vast inland sea, to this day largely covered by lagoons and swamps, and in the frequently recurring years of flood reconverted into a lake of nearly the old surface dimensions. Such floods occur in seasons when the 'Szechuan river' that flows past Shashih and the main river flowing forth from the Tungting lake rise simultaneously. The immense mass of water is then dammed up by the narrows at 'Split Hill,' fails to run off as fast as it is fed from behind and so spreads over the

surrounding country. At such times nothing is seen above the waste of waters but the roofs of the farm-houses, insufficiently raised on artificial earth-mounds. Even the cities of the plain are then only partially raised above the flood level, the greater portion of their areas being under water, sometimes for months together, involving terrible loss of life and a vast destruction of property. In normal years the Tungting lake region, fed from the south, receives the first burst of the monsoon rains, and its waters have time to escape before the Szechuan river, as it is here called, is in flood from the drainage from the far west—the produce of the late summer rains in Yunnan and the melting of the Tibetan snows. The northern and western half of the province is mountainous, thinly populated except in the narrow valleys of the Han river in the north and of the ' Tsing ' or Pure River in the west ; this latter, a pellucid stream that waters the vale of Shinan and falls into the Yangtse a few miles below the Treaty Port of Ichang. Through these mountains the Yangtse, after quitting Szechuan, continues its way through the grand gorges that terminate at Ichang, situated one hundred miles to the east of the border line between the two provinces. The only possible land road from Hupeh to Szechuan follows up the valley of the Tsing river to Shinan, climbing over a succession of low passes until, after leaving Shinan, it ascends to the plateau country of Lichuen until the path falls again to the level of the Yangtse at a point fifty miles above Wan-hien in a precipitous descent of 4,000 feet ; the road then crosses to the left or north bank of the river and continues west across a series of mountains to Chungking. This road, in the Hupeh portion, is quite impracticable for heavy traffic, although used at times by travellers debarred from the water route by the fierce summer downward current ; but the scenery is extremely picturesque, owing to the high white limestone cliffs which hem in many of the rich intervening valleys, and the frequent ascent of the path up and over them. Yet porters, for many years, carried chests of opium from Szechuan to Hupeh by this route in order to avoid the Likin stations on the river, until the gabelle officials at last made up their minds to place Likin stations upon the land route as well, which led to the present readoption of the water route. The Tapa-shan range, which divides the Yangtse valley at

Ichang from the Han valley to the north is still more rugged, and the trails over it are scarcely used by any but charcoal-burners; what little traffic there is makes its way round by the Han to Hankow. Leaving Ichang and its foothills of rough gravelly soil, producing little beyond barley and dwarf pines, a descent of eighty miles down stream brings us to the mart of Shashih, the western focus of the great Hupeh plain. All of Shashih not built on raised land lies below the summer level of the river and is protected from it by a magnificent embankment of cut limestone. Adjoining Shashih stands in the low plain the walled prefectural city of Kingchow, the seat of the intendant of the region (the Taotai) and of a Manchu garrison—strong in numbers but effete—living as pensioners with their wives and families in a fortified enclosure apart from the Chinese city. Kingchow in ancient times was renowned as the capital of the feudal state of Tsu, and many are the battles for supremacy fought in its neighbourhood. It was here that, about B.C. 300, Chü-yüan, the faithful Minister of Prince Hwai of Tsu, committed suicide by drowning himself in the Mi-lo river. This famous suicide occurred on the fifth day of the fifth moon, and, on the anniversary of that day, throughout all Mid- and South China, the great Dragon-boat Festival is still celebrated, the people having thus been searching the rivers of China for the recovery of his body and the appeasement of the hero's manes for over 2,200 years.

Shashih is an important canal centre and junk entrepot, and was formerly, until superseded by the establishment of Ichang as a Treaty Port in 1876, the port of transshipment for the produce of Szechuan brought down by junk from Chungking. A canal to the north and east gives a short cut to Hankow, whereby the dangerous navigation by the quicksand-infested 'King River,' as the Yangtse is here called, is avoided, while a canal to the south provides easy communication by the Yuan river to the province of Kweichow, and by the Tungting lake to Hunan. Now that foreign steamers run to Ichang and call at Shashih, to whom the shoals and quicksands of the 'King' mean nothing more than temporary delays, the canal system is diminishing in importance and its maintenance is being neglected. Two hundred and eighty miles below Shashih by the

windings of the Yangtse, we come to Hankow, which lies in the same latitude ($30\frac{1}{4}^{\circ}$), and is distant only two degrees, say 100 miles, in longitude. The three cities which together make this spot the commercial and official capital of the province spread out on all sides around the meeting-point of the Han and Yangtse rivers ; Wuchang, the residence of the Viceroy on the right or south bank of the Yangtse ; Hanyang, another walled city and seat of a magistracy on the right bank of the Han, and north shore of the Yangtse ; and Hankow, the greatest of all, but which has neither walls nor officials, on the left bank of the Han, and north of the Yangtse facing Wuchang. The water traffic is enormous, and seeing that Hankow will shortly be the railroad centre of the vast empire, if Chungking, as Wells Williams opines, is the coming St. Louis, then Hankow bids fair to become the Chicago of the east. Its population, now estimated at over a million, rivals that of Chicago ; it is a *dépôt* for a surrounding country of more varied productions, while new industries and factories are daily coming into existence. To those residents in China who can still remember the utter ruin and desolation of these triple cities after their evacuation by the Taipings in 1855 (these cities were taken and retaken by assault no less than six different times between December, 1852, and May, 1855), their revival is astonishing ; a revival due, unquestionably, not alone to the great recuperative power of the Chinese themselves, but in the main to the opening of the port to foreign settlement. This measure, so bitterly opposed by the official Chinese and so welcome to the people, has been the salvation of Hupeh, by the introduction of foreign capital, and energy stimulated by international rivalry. The Abbé Huc, who passed up the Yangtse in 1845 while on his memorable voyage to Tibet, gave what must then have been an exaggerated estimate of the population of the triple cities as 3,000,000 and the extent of the buildings along the banks as five leagues ; but this estimate appears to be gradually materializing, as each successive visit after two or three years' interval demonstrates. The bulk of the trade, however, is in Chinese hands, though largely carried in foreign bottoms. The foreigner makes new openings and organizes new enterprises, but in time the slow persistent native on the spot, with his inexhaustible patience and boundless thrift,

absorbs them to himself, and the hare is overtaken by the tortoise.

The productions of Hupeh are less varied than those of Szechuan to the west or of Hunan to the south, its mountains—denuded of their forests—being mostly barren, and the plain producing little more than the strict requisites of the people for food and clothing, barley and cotton being the chief: the large supply of rice for consumption is mainly derived from the richer province of Hunan, as is also the chief article of foreign export, tea. Cattle are raised in large numbers in the north, and their hides are a prominent feature in the exports; oil-bearing seeds are also raised in considerable quantities, silk is spun and woven to a large extent—as everywhere in China where the mulberry-tree will grow—together with numerous fruits and other products common to sub-tropical China; coal and iron are found close to the Yangtse, but the quality of the former, as throughout all the Yangtse basin until Szechuan is reached, is poor, and it is not over-plentiful. The Han river is now navigated by small Chinese-owned steamers as far north as Siangyang, a distance of 300 miles, and, during the summer freshets, by junk and small boat up to Hanchung in Shensi, six hundred miles further. Hupeh is separated from Honan and the Hwai valley on the north by the Ma-ling range, which is now traversed by the Luhan railway on its way to Kaifeng and Peking; and, in the south by the Wu-feng-ling, or 'Five-peak' range, which divides the province from Kiangsi. Leaving Hankow, the river flows south-east and breaks through the northern prolongation of this range in the narrow winding channel of 'Split Hill,'—a channel not yet enlarged sufficiently to carry off the summer freshets as they come down from the west, and which, by its interposition, contributes to the annual rise at Hankow of forty-five feet and more above the winter level. After passing these narrows we emerge, at Wusueh, into the plain that now extends to the north of Kiukiang, and which, in conjunction with the Poyang lake and the alluvial lands surrounding it, once formed the second of the great inland seas of which the present lakes are only the attenuated remnants. From Hankow to Kiukiang the distance is 140 miles by a south-east course, Kiukiang being situated in latitude $29\frac{1}{4}^{\circ}$, at the southern bend

of the river whence it continues in a north-easterly course to Nanking and thence E. and ESE. to the sea. Kiukiang stands on the right bank of the Yangtse, in the province of Kiangsi, which we describe later. The opposite or left bank is still included in the province of Hupeh down to the entrance of the Poyang lake.—We now turn back to Hunan, the northern boundary of which we skirted on our way, past the Tungting lake, from Shashih to Hankow.

The province of HUNAN, the third on our list, is mountainous throughout; it comprises, in all, four river basins, those of the Li and Yuan rivers in the north, of the Tze-kiang in the centre, and that of the Siang-kiang in the east, all draining into the Tungting lake and so tributary to the Yangtse. The area of the province is 83,000 square miles, and its population is estimated at 21,000,000. Hunan, owing to the strong anti-foreign feeling of its inhabitants, and to the fact of its lying aside from the main routes of travel, was, until quite recently, the least known of the eighteen provinces. Now, however, the route of the newly authorized grand trunk, north and south, line of railway, conceded to an American syndicate, has been surveyed through it, while its capital, Changsha, has been placed in steam communication with Hankow. The province extends north and south about 300 statute miles. between the 26th and 30th parallels of north latitude, and east and west, between the 107th and 111th meridians of longitude, about the same distance, forming a rough square between Hupeh on the north, the two Kwang provinces on the south, Szechuan and Kweichow on the west and Kiangsi on the east. Hunan possesses little level land; what there is, is confined to the deltas of the rivers where these fall into the shallow basin of the Tungting lake, and these form naturally the chief rice-growing region, of which the prefectural city of Changteh on the Yuan river is the centre, and whence large quantities are exported to Hankow. The province is situated in the midst of the mountainous region which covers the whole of South-east China, and extends uninterruptedly from the Yunnan plateau to the sea. These confused mountain masses, with a general trend east to west, averaging some three thousand feet in height, but often reaching to five and six thousand feet, especially at the boundary lines and water-

partings, isolate the provinces from each other, as well as they do the districts into which the provinces themselves are divided. This naturally enforced isolation tends, in the absence of practicable roads, to segregate the inhabitants into small communities, ignorant of the outside world and even imperfectly acquainted with each other; this condition of affairs is strikingly exemplified in the myriads of local dialects. Time was when I was able to recognize the difference in dialect between the inhabitants of the six different Hien, or counties, of one prefecture, as easily as the distinct flavours of the tea which each of these separate valleys produced; a marked contrast to the countries north of the Yangtse, throughout which the 'mandarin,' almost absolutely useless for travel in the south, is everywhere intelligible. The northernmost of the four river basins of Hunan, that of the Li—the Li-shui, the waters of Li, so named from Li-hien, the city situated at the head of its delta—is separated by a range running east and west from the parallel valley of the Yuan. The Li-shui takes its rise within the boundaries of the province itself, and is navigable, by small scows only, as far as Shih-men, the 'Stone Gates,' a distance of about thirty miles above the town of Li, more generally known under the name of its prefectural city, Fengchow. The Yuan river, on the other hand, which takes its rise as far west as Kweiyang, the capital of Kweichow, is navigable up to the borders of that province and is the scene of an important traffic, notwithstanding that its course also is obstructed by almost continuous rapids. By painful toil the boatmen manage to convey merchandise as far as the city of Yuanchow, 200 miles above the city of Changteh, built at the head of the delta. The Yuan river is likewise utilized by Szechuan travellers, who, by a short land portage, are able to connect with the Kung-tan river, which also takes its rise in Kweichow, and by it descend to the port of Fuchow, situated fifty miles below Chungking, whereby the dangerous summer navigation of the Yangtse is avoided and advantage taken of the corresponding sufficiency of water in the Yuan. The Tze river, which rises in the south on the borders of Kwangsi, and which drains another fertile valley, flows northward until it joins the Siang at its mouth in the Tungting lake; this river has little value for navigation, as its alternative name—the

T'an or 'Rapids' river—would seem to imply. The Siang, by far the largest river of the four, takes its rise in the neighbourhood of Kweilin, the capital of the province of Kwangsi, and has a course of three hundred miles before it falls into the Tungting lake in the north. The Siang river is navigable by small craft throughout the whole of its course; a short canal connects its head-waters with those of the Ku-i river on the other southern slope of the water-parting, thus connecting the Yangtse by continuous inland water communication with Canton. Steamers of five hundred tons burden now run, in summer, between Hankow and Changsha, the capital of the province, which stands on the right bank of the Siang, sixty miles above the new Treaty Port of Yochow at its mouth; and smaller steamers to the great tea mart of Siang-tan, situated on the left bank, thirty miles higher up. From Siang-tan is drawn the greater portion of the tea shipped from Hankow in ocean steamers to Odessa and London, the neighbourhood of latitude 28° being that in which the tea-plant in China best flourishes. All these south-eastern provinces of China, mountainous as they are, are well exposed to the monsoon coming up from the China Sea, and so, in normal seasons, being well watered, are susceptible of terraced cultivation for rice and all other sub-tropical crops, and no eyrie susceptible of cultivation is unoccupied. Oil-producing seeds are grown in quantity here as in Hupeh and elsewhere, the oil being shipped away in tubs and in bamboo crates lined with oil-proof paper: these, with tea, coal, hemp and tobacco, form the principal articles of export. The timber trade of Hunan is likewise a very large one, immense rafts being floated down-stream from Changsha and on down the Yangtse, the lower ports on which, denuded of their own natural forests, are now supplied exclusively from Hunan. Shanghai is supplied with lumber from the Pacific coast and with small poles from Foochow. These huge rafts, drawing six and eight feet of water, with temporary but complete houses for their crews erected on them, are a great feature in the navigation of the Lower Yangtse, timber yards lining the river banks for miles at the more populous cities where the rafts are broken up. The lumber is derived from the forests, remnants of which are still found in the higher mountains remote

from water carriage ; but, as the Hunanese are cutting into these from the north and the Cantonese are cutting into them from the south, not many years will pass before these too are exhausted, after which time China will be entirely dependent upon Puget Sound for her lumber supply, as Tientsin and the coast ports are to-day. These mountains, which divide the watershed of the Yangtse from that of the ' West River ' of Canton, are known as the Nan-ling or southern range ; they are crossed by three passes, over which lead wide stone-paved roads, built in ancient times of huge stone blocks over a foot in thickness, the two chief being the ' Che-ling ' which leads into the Canton province from Hunan, and the ' Mei-ling ' which leads from Kiangsi also to Canton. The introduction of steamers on the coast and rivers has led to the practical abandonment of these tedious land routes, where merchandise is carried on men's backs, for all but local traffic.

The Tungting lake, which still looms large on the maps, is now silted up to such an extent that it is only navigable in the channels of the rivers flowing into and through it to the Yangtse, the Yuan river crossing the lake east and west, and the Siang river crossing it north and south ; though their banks are flooded in summer and so give to the basin the appearance of a lake, yet in winter it is little more than a vast expanse of sand flats. This with the Poyang and other lakes bordering on the Yangtse form backwaters for the storage of the surplus floods of the great river, at which time the current in the contributory rivers flows up-stream instead of down.

The fourth of the Yangtse provinces is KIANGSI. This province lies immediately to the east of Hunan, in the same latitude, and is similar in size, climate and natural conditions generally. Its area is 69,000 square miles and its population 24,000,000. A smaller area supports a larger population, owing to the greater extent of level land formed by the deltas of the rivers falling into the Poyang lake ; in the centre of the alluvial plain thus formed stands the provincial capital, Nanchang-fu, originally built on the shore of the lake, which has since receded thirty miles northward. The main artery of the province is the Kan river, which, rising on the southern border, in the neighbourhood of the Mei-ling Pass, traverses the province

from south to north, and, after collecting numerous affluents on both sides, debouches into the Poyang lake, and so into the Yangtse. It was over the Mei-ling Pass and down the Kan river that, in old days, the embassies landing in Canton proceeded north on their visits to the Court at Peking; thus we possess long and glowing accounts of this country in the records of the Macartney embassy in 1793, and the Amherst embassy in 1816, which returned by this route; these accounts of the wealth in natural products and the swarming activity of the people still hold good, notwithstanding that Kiangsi, like its neighbours, suffered severely from the devastation of the Taipings in the 'fifties,' although the people of Kiangsi still pride themselves on the fact that their capital city, Nanchang, successfully withstood a long siege until the advent of the imperial troops from the north compelled the 'rebels' to retreat. Other affluents of the lake on the east are: the Fouliang river, by which is received the produce of the famous potteries of Kingtehchen; the Yaochow river, which drains a rich 'green' tea district and coal region; and the King-kiang, which drains a similar region farther south. On the west, the Siu river, which takes its rise in the 'Five Peaks' mountains dividing Kiangsi on the north-west from Hupeh, falls into the Kan at Nankang after draining the famous vale of Wuning and Ningchow, wherein is produced the finest congou in China, if not the finest tea in the world, now retained mainly for consumption by connoisseurs in Russia. The potteries of Kingtehchen on the Nganhui border owe their fame to the existence near by of an apparently inexhaustible quarry of the white clay, formed from decayed granite, known as 'kaolin,' a word derived from the local name of the range and meaning 'High Pass,' whence the clay is quarried in a condition ready for the hand of the potter. The only similar deposit in England is in Devonshire in the Teign valley. Kingtehchen supplies nearly the whole of the empire with rice bowls, a necessity in every Chinese family, rich or poor, besides endless varieties of ornamental porcelain, which, however, show a sad falling off, both in colour and form, from the productions of the fifteenth and sixteenth centuries, specimens of which are hardly now obtainable in China, owing to the high prices paid for such by amateurs in Europe and America. Kiukiang, the Treaty

Port situated twelve miles above the outlet of the lake, is the port of shipment for the valuable productions of the province, among which tea, porcelain, paper, and vegetable tallow are the chief. Kiukiang was opened to foreign trade in 1861, at which time the fine native city was a waste of broken bricks with scarce a single inhabitant. The native city and the country round still show signs of their devastation by the Taipings, but the foreign settlement and adjoining native suburb prosper by the heavy transit trade, developed by steam, of which Kiukiang is the centre; to foreign residents in the Yangtse valley, from Shanghai upwards, Kiukiang is best known as the landing-place for the Lu-shan mountains, at the foot of which Kiukiang stands. This fine range—a hog-back in appearance—5,000 feet in height, has recently been opened up for foreign residence; hundreds of bungalows have been built, and the place is now known as the sanatorium of Kuling. The summer climate is delightful, so cool that the Chinese inhabitants there wear their wadded clothes all the year round. The climate of Kiangsi generally is hot in summer, as befits the latitude, but the winters are cold, so much so that occasionally the lakes that intervene between Kiukiang and its mountain background are frozen, and I have myself enjoyed good skating on them: this in latitude 29° and at not fifty feet above sea-level is an evidence of the extremes to which a continent subject to monsoons is exposed. Kiangsi may be summed up as an inland amphitheatre of mountains, one-fifth larger in area than England and Wales, draining into a central lake, now all but filled up by their detritus.

Leaving Kiukiang, the Yangtse is deflected north by the high granitic ranges of Eastern Nganhui and traverses that province in a NNE. course, 250 miles to Nanking. Hence the river flows alternately, north-west to south-east, where it breaks through the mountain chain, and south-west to north-east, where it flows in the ancient valleys *between* the ranges, its course being thus dependent on the ancient configuration of the land. These mountain ranges consist throughout of palaeozoic rocks, the newer formation existing only in patches, mainly of loess and laterite, filling the bottoms of the old valleys. The province of Nganhui embraces an area of 55,000 square miles (compare England and Wales, 58,000), and is credited with a population

of 21,000,000. It is situated between Honan and Kiangsu on the west, north and east, with Kiangsi and Chekiang on the south. The province comprises two valleys : that of the Hwai in the north and that of the Yangtse in the south, separated by the eastern extension of the Tapa-shan, the range that marks the northern boundary of the adjoining province of Hupeh and which finally disappears under the alluvial plain of Northern Kiangsu ; this low chain turns north-east on leaving Hupeh and runs parallel to the high range of the Hwang-shan or Yellow Mountains that shut off the Yangtse valley from Kiangsi and Chekiang in the south and east. Both valleys are well watered and fertile, but the higher ranges, now denuded of their forests, are rugged and uncultivated. The valley of the Hwai, an eastern prolongation of the Honan plain, inclines seaward to the absolutely flat plain of Kiangsu, the land being gently undulating, and yielding in years of normal rainfall good crops of cereals, as across the frontier in Honan. In the Yangtse valley, in the south-east, on the foothills of the Sung-lo or Pine range, large quantities of a superior quality of green tea (i.e. tea-leaf so prepared) are grown and brought to Shanghai for sale, whence they are exported, mainly to the United States ; a certain portion, and that of the finest quality, going to Bombay for consumption in Persia and Central Asia. The centre of this tea-packing region is Huichow-fu, situated in the extreme south of the province and commonly known to tea-buyers as 'Fychow,' a district also famous throughout the empire for the superior quality of its 'Indian' ink, made from the soot of burning oil from the seeds of the Tung-tse tree (*Aleurites cordata*), mixed with glue and scented. In the east of the province, two hundred miles down river from Kiukiang, we have the Treaty Port of Wuhu situated in the centre of the lowest of the ancient lake basins, now the richest rice-producing region in China. This basin is shut off on the east by the Nanking highlands and the low range through which the Yangtse makes its way by the gate of 'The Pillars.' To the south and east this ancient basin is open to the Tai-hu lake and the sea, many evidences going to show that the Yangtse at one time made its way to the sea by this exit, before the low promontory on which Shanghai now stands, and which divides the present estuary from the Hang-

chow bay, was laid down. Wuhu was utterly destroyed during the Taiping rebellion and the whole country round denuded of its inhabitants, yet the region is so fertile, and its lowlands so suitable to the cultivation of the paddy, that it furnishes immense supplies of rice annually for export to the south, whither it is conveyed by foreign steamers, a fleet of which is constantly moored off the port. The capital of the province, Nganking, situated on the left bank, sixty miles below Kiukiang, was also for seven years in 'Taiping' hands, during which it was desolated by the rebel occupation and by its capture by the Imperialists under Tseng-kwo-fan in 1861, but now, having been made a port of call for the river steamers, it is slowly recovering its old importance. Immediately below Nganking the Yangtse flows through the narrows of 'Hen Point,' one of the 'gates' giving exit to the old lake basin above. Another noted city of Northern Nganhui is Fengyang ('Rising Phoenix'), situated on the right bank of the Hwai and at the foot of the hills which bound its valley in the south. Fengyang was destined for his capital by Hungwu, the founder of the Ming dynasty in A.D. 1368, but was subsequently abandoned for Nanking. In modern times Nganhui has become noted as the home of Li Hung-chang, China's only statesman, as his admirers called him, and who used his power largely to promote Nganhui men to important posts without regard to their competence and with disastrous results to the empire at large; his native town of Ho-fei is famous in history as the scene of the great defeat of Sun-kwan, founder of the dynasty of Wu in the romantic epoch of the 'Three Kingdoms' (A.D. 220-280), by Ts'ao Ts'ao, the rival prince of Wei (A.D. 215). Nganhui suffered worse than any of the provinces from the struggles between the Taipings and Imperialists that were carried on for ten years (1852-1862) on its soil, which ultimately became a wilderness swarming with wild animals; it has now been gradually re-peopled, largely by immigrants from neighbouring provinces less cruelly used, and its many towns that line the Yangtse are now the scene of great activity. The introduction of railways and the concomitant order and strengthening of the central power will, it is to be hoped, render a repetition of the awful and prolonged horrors of the Taiping conflict an impossibility in the future. Nganhui forms one of the three provinces,

Kiangsu, Nganhui, and Kiangsi, that together make up the Viceroyalty of Kiangnan.

The sixth and last of the Yangtse provinces is KIANGSU, with an area of 45,000 square miles and 30,000,000 inhabitants : it is thus one-tenth less in size than England, but with about the same population. Kiangsu is best known as the site of the southern capital, Nanking, the seat of the Viceroyalty of Kiangnan : and of Shanghai, the commercial metropolis of the empire. The Yangtse enters Kiangsu at 'The Pillars,' twenty miles above Nanking, where tide-water is met at two hundred miles from the river's mouth. Hills, from five hundred to one thousand feet in height, continue to line the banks, stopping short of Chinkiang on the left bank but continuing beyond that port on the right bank until well within the delta, fifty miles from the mouth ; with this exception, and that of a few isolated hills that rise steep from the plain, like islands from the sea, the province is one wide alluvial flat, formed entirely by the encroachment of the river silt on the Pacific Ocean ; it is the Holland of China, the Yangtse taking the place of the Rhine, and, like the former country, is traversed by canals and canalized streams in every direction, cultivation along the coast being carried on in polders, where the country is below the level of high water. The province is traversed from north to south by the Grand Canal, which crosses the Yangtse at Chinkiang, 150 miles above Shanghai : nearly one-tenth of its area is covered by shallow lagoons and reed-producing swamps. This delta is limited on the south by the highlands of Chekiang and the Chusan archipelago, and on the north by the highlands of Shantung, between which it extends, from the 31st to the 35th parallel of latitude, a distance of 250 miles, the width of the delta averaging 150 miles. The delta is steadily growing seawards and every year sees new land reclaimed from the sea ; the water-courses, tributary to the river and open to tidal action, are fast filling up with the silt brought in by each flood tide from the Yangtse. This growth of the land is specially noticeable at Shanghai, where, in the memory of men still living, the Wusung and Hwangpu rivers, at whose junction Shanghai is built, have lost one-third of their former volume, and threaten in the very near future to depend entirely on artificial measures to keep them navigable.

At the rate the coast is now making out to sea, the next century may see Shanghai situated on the banks of a clear-water canal above tidal influence; so flat and spongy is the land that it seems to absorb the greater part of the rainfall and to leave little for the rivers intersecting it to carry off: these therefore become relegated to the position of canals, and have to be maintained as such, forming as they do the grand highways of the country. Shanghai is roughly said to be situated at the mouth of the Yangtse, but in reality the city is built on the banks of a tributary, the Hwangpu, which falls into the Yangtse at Wusung, forty miles above Yangtse Cape, a point which marks the southern entrance into the river. The Hwangpu and Wusung are in reality tidal creeks communicating with the network of tideless canals which, free of all locks or weirs, thread the interior country. Shanghai thus stands on a branch river, and in much the same relation to the mouth of the Yangtse as Chatham to the mouth of the Thames; its name, meaning 'Up to the sea,' would seem to show that in ancient times it certainly was nearer to the sea than it is at present;

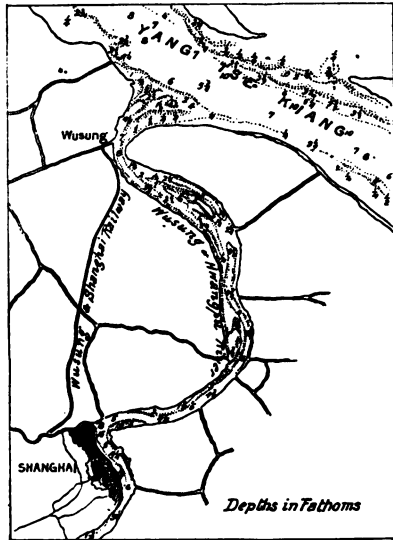


FIG. 18.—Approaches to Shanghai.

it lies now fourteen miles up the Wusung river, and fifty-four miles distant from the sea: still, in dry seasons, the water at Shanghai is distinctly brackish. Shanghai stands in latitude $31^{\circ} 15'$ north, and in longitude $121^{\circ} 29'$ east, or, in time, eight hours and six minutes east of London; its relation to the Yangtse river is compared by Wells Williams to that of New Orleans to the Mississippi, and, although Shanghai has the distinction of lying up a side creek and not on the main river itself, the analogy with

New Orleans (which stands close upon latitude 30°) is good in the fact of its being the sea-going port of the great river artery of the country, and in the necessity of artificial means to conserve its communication with the ocean. Shanghai, however, serves a richer country with larger and far more varied productions than New Orleans, and has the advantage of the open sea in every direction ; hence it is naturally the great centre of the foreign trade with China and is rapidly becoming the commercial metropolis of the whole vast empire,—much as is New York that of the United States, an equally rich and extensive region with like varied and unlimited natural resources. Previous to its establishment as a Treaty Port at the instance of the British Government in 1843, Shanghai was the chief port of call for sea-going junks on the China coast, large fleets of which were always anchored, and still anchor, off the Chinese suburb built under the walls of the native city, above the ‘foreign’ international settlement. It was not apparently until the eleventh century A.D., when the Southern Sung dynasty, driven from the north by the Kin Tartars, had established their capital in the neighbouring city of Hangchow, that the trade of Shanghai warranted the establishment of a custom-house on its shores ; this being one of the earliest recorded facts in the history of the district ; and it was not till the fourteenth century, when the Mings had driven out the Mongols and established their capital in Nanking, that Shanghai was raised to the dignity of a walled city and county capital. Two centuries later the growing mart was destroyed by pirates from Japan, who were then ravaging the whole coast of China (leading to the wholesale removal of many coast cities inland), and at last, on June 13, 1842, Shanghai was attacked by 4,000 British troops under Sir Hugh Gough, whereby the port was thrown open to foreign trade, and its eventual prosperity finally assured. In 1851 the native city was captured by Triad rebels, affiliated to the Taipings, but these were driven out again in 1853. In 1860 the extensive suburbs to the east and north of the walled city were set fire to and destroyed by the French as a precautionary measure against the Taipings, who were then again threatening the place, which suburbs were afterwards incorporated in a separate French settlement—the French having from that

time refused longer to unite with the general international settlement originally established by the British, although when the port was first opened the French combined with the British in drawing up the regulations under which, up to that date, the settlement was governed; the fire, of which the writer was an eye-witness, burnt furiously for three days and nights, destroyed enormous quantities of merchandise, and rendered 100,000 Chinese homeless. The 'settlement' took a great start in that year, largely owing to the influx of wealthy Chinese flying from the ravages of the insurgents, and now bids fair to ere long occupy the whole of the fourteen miles of river frontage down to the port of Wusung, where the Shanghai river falls into the Yangtse. The total population in this year (1903) is estimated to have increased to 10,000 'foreigners' and 600,000 Chinese, who are under the administration of a municipality annually elected by the European residents. The work of the municipal councillors, administering a revenue of a quarter of a million sterling, is very exacting and is unpaid; but the result is a model settlement; unpaid labour, here as elsewhere, yielding the best return. No place better than Shanghai exhibits the gulf between East and West; the contrast between the native city—a walled-in mass of reeking filth—and the clean, spacious, well-paved, tree-shaded streets of the settlements, must be seen to be credited, while the crowded walled city takes one back to the fifteenth century in Europe. 'The Chinese are ready enough to enjoy and support the higher style of living, but they are not yet prepared to adopt and maintain similar improvements among themselves. The difficulty of ensuring the co-operation of their rulers in municipal improvements deters intelligent natives from imitating even the commonest sanitary enterprise of their foreign neighbours.'

Outside of Nanking, the official capital, the official name of which is Kiangning, the Treaty Port of Chinkiang, and Shanghai, the commercial capital, the principal cities are Suchow, sixty miles west of Shanghai on the borders of the Tai-hu lake, and Yangchow, on the Grand Canal, twenty miles to the north of Chinkiang; it is from the latter city that the Yangtse derives its name, or possibly, vice versa. Fifty miles higher up the Canal is situated Hwai-an-fu, chiefly important as the centre

of the manufacture of 'Hwai' salt, a government monopoly and the main source of the provincial revenue—the salt being evaporated from the sea. The most valuable production of Kiangsu is silk; mulberry-trees line the banks of the canals both here and in the adjoining province of Chekiang, the quantity produced being practically illimitable. There are few provinces in which silk is not produced, silk being the common wear of all but the poorest classes in China, but the finest quality and the largest quantity is produced in this low plain, which extends across the border into Chekiang as far west as Hangchow and Huchow, where the unbroken highlands reaching away west to the far Atlantic commence. Next in importance comes cotton, which, besides supplying the looms to be found in every cottage and the steam mills of Shanghai, yields the main supply to the numerous spinning-mills in Japan. Rice and innumerable other sub-tropical crops are raised in abundance, but sugar and tobacco to supply the wants of the people are imported from other provinces. The climate is soft and mild; the heat and cold being tempered by almost constant sea-breezes, and the Suchow women with roses in their cheeks and fair skins are reckoned the handsomest in China: rain falls more or less throughout the year, but chiefly with the setting in of the monsoon, from May to July.

The province suffered severely in the middle years of the past century from the ravages of the Taiping rebels, who made Nanking the capital of the new dynasty they vainly attempted to found. The then rich and flourishing city of Nanking was captured by them, after their march through Hunan and down the Yangtse, in 1852, and, like a second Troy, stood a ten years' siege before it was retaken by the Imperialists in 1864. Up to 1860 the rich cities of the plain—Changchow, Suchow, Huchow, and Hangchow—had escaped molestation, nor, while the Taipings were besieged and hemmed in in Nanking, did the happy-go-lucky inhabitants attempt to organize any measures of defence.

Suddenly in 1860, without warning, the half-starved rebels made a grand sortie from their capital, utterly routed their besiegers and overflowed like a torrent into the rich plain to the south; one city after another fell without opposition, until the 'Chung' Wang, well named the 'Faithful' Prince, was brought

up against the walls of Shanghai, defended by foreign troops. Then followed four years of fighting, chiefly under the leadership of Gordon, the Taipings displaying a courage and determination worthy of a better cause, until in 1864 Nanking fell to the Imperialist besiegers, and the reactionary Manchu dynasty had another chance given to it. During these four years the luxurious cities of the plain were taken and retaken by the contending forces until scarcely one brick was left standing on another. I myself visited Hangchow after it was retaken by the Imperialists in 1862, and walked for ten miles along the banks of the Grand Canal and T sien-tang river over a waste of broken bricks. Nanking, with its thirty-five square miles enclosed in a wall fifty feet high, once the seat of innumerable flourishing manufactures, met with equal destruction. The whole country-side was depopulated, half the people were killed, half may have escaped to Shanghai and other cities of refuge, where they led a precarious existence until peace was restored and they were able to return to their ruined homes. It is generally estimated that, in this and the neighbouring provinces subject to ten years of Taipingdom, fully 20,000,000 people perished by the sword and famine. The remarkable endurance and recuperative powers of the Chinese, as well as the resources in the soil, are shown in the marvellous way in which the country has since been redeemed from savagery and the cities rebuilt. As a result of the Japanese War of 1894, Suchow and Hangchow were made open ports as well as Nanking, and the consequent outlay of foreign capital and the introduction of steam traffic have aided the impoverished people in their recovery.

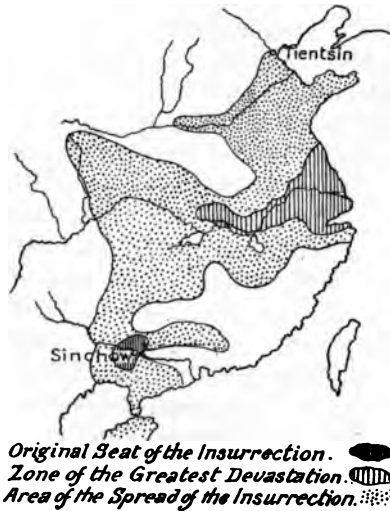


FIG. 19.—The Taiping Insurrection.

CHAPTER VIII

THE INTERMEDIATE PROVINCES

Two intermediate provinces which, speaking accurately, belong neither to the middle basin of the Yangtse nor to the southern basin of the 'West River,' their rivers draining as they do direct into the Pacific, are Chekiang and Fukien : in climate and productions, however, they belong rather to Mid China than to the south and so are fitly introduced into this chapter. They may be said to be cut off from the great province of Kiangsi on their west by the range of the Wu-yi-shan, commonly pronounced 'Bohea,' the crest of which forms the water-parting from the Yangtse basin and turns their streams eastward to the sea. Both provinces are wholly mountainous, with the exception of a few square miles of flat land to the north and east of Hangchow, which geographically form a part of the Yangtse delta, there being no line of demarcation whatever.

CHEKIANG is the smallest of the eighteen provinces, having an area of 36,000 square miles only, with a population estimated at 11,000,000. Its name is taken from a river in the southern part of the province called the Che-kiang, meaning Crooked River, one of the many small rivers that, rising in its western mountains, traverse the province in a west-east direction and fall with a rapid incline into the sea. Chekiang is one of the best-known provinces to European travellers ; its chief port, Ningpo, has been frequented by 'foreign' ships on and off since the Portuguese first visited it in the sixteenth century ; its people are friendly and highly civilized, and the region, besides being easily accessible, presents every possible attraction in its products and its scenery to the intelligent traveller. Robert Fortune, the botanist, who visited the province in 1848 and subsequent years, has left us an elaborate account of its richness and social characteristics : Baron Richthofen has also given us a good account of its topography. To the writer, familiar with the West, it appears as a miniature Szechuan, which in climate

and productions and the sociability of its people it much resembles. With the exception of valley bottoms, limited in extent, the province is covered with mountains rising to about two thousand feet, less steep than in Szechuan and either cultivated or covered with valuable forest trees and bamboo plantations throughout. The whole province produces cotton, silk, tea, rice, ground-nuts, wheat, indigo, vegetable tallow, and beans in abundance. 'It possesses within its limits every requisite for the food and clothing of its inhabitants, while the excellence of its manufactures ensures it in exchange a supply of the luxuries of other regions.' Lord Macartney traversed the province in 1793. The principal river is the Tsien-tang, which drains the northern half of the province, and, after a general north-east course (parallel to the Yangtse 200 miles to the west), falls into the Hangchow bay, after washing the walls of Hangchow, the capital of the province. The Tsien-tang is a river of clear water and brings down no silt; above Hangchow it flows through a picturesque gorge in a stream three to four hundred yards wide; it is navigable for fair-sized craft as high as Yenchow, and in its upper forks, which here branch off, by rafts to the borders of Kiangsi and Nganhui. The Hangchow bay at its mouth is no longer navigable for seagoing vessels, although a few solidly constructed junks of special build are used for local traffic of a rough nature. At low water (springs), this wide bay, with an area of not less than four thousand square miles, appears a vast expanse of sand traversed by a few streams of fast flowing water, until the tide turns and the flood comes in with a rush, converting the estuary into an apparently shoreless sea. At full and change of the moon this phenomenon of the Hangchow bore is a sight that attracts many visitors from Shanghai. Fifty miles below Hangchow, and equally on the north shore of the bay, stand the ruins of Chapu, once the port of Hangchow and enjoying a large sea-borne trade: the sea around it has now silted up, but sixty years ago (1842) it was accessible to the light-draft ships of the British fleet which attacked the place and defeated its Manchu garrison. Midway between these two places is situated the far older port of Kanpu, now left entirely high and dry, and which was the great resort of Arab traders in the eighth and ninth centuries, at which time

it was the chief port in China and the only one at which foreigners were admitted to trade during the Tang dynasty. Marco Polo, who visited the site in 1290, says of it : ' The Ocean Sea comes within twenty-five miles of the city (Hangchow) at a place called Ganfu¹, where there is a town and an excellent haven, with a vast amount of shipping which is engaged in the traffic to and from India and other foreign parts. And a great river flows from the city of Kinsay (Hangchow) to that sea-haven by which vessels can come up to the city itself.' Chinese annals report the massacre and driving out of the Arabs and other strangers settled in Kanpu in the ninth century, to the number of 800. Disputes seem to be chronic between Chinese and ' foreigners,' due probably to the difficulty of understanding each other's language and customs, as well as to the venality and chicanery of the officials. The accelerated rate at which this, on the map, fine bay has silted up can probably be accounted for by the growth of the Shanghai peninsula seawards in the north, by which the tidal scour up and down has become shut off, and by the narrowing of the channels between the south point of the bay and the Chusan islands which lie off its mouth. The bay has thus become a sort of

¹ The site of Kanfu (or Kanpu) has long formed a vexed question amongst foreign historical students in China. Sino-logues who have searched the annals of the Tang dynasty have generally reached the conclusions given in our text, but, having been over the ground, I am rather inclined to endorse Mr. Kingsmill's deductions,—also drawn from a survey of the ground, and set forth in one of the many articles contributed by him to the *Journal* of the China Branch of the Royal Asiatic Society. Mr. Kingsmill writes : ' The Kanfu of the Arabian travellers was *not* Chapu. Any one except a "Sino-logue" might have known that to an Arab it meant Kwang (chow) fu = Canton. There never was a foreign port in Hangchow Bay any more than at present. The regular port was Ningpo, whence goods were taken to Yuyao (a small city on the Yung river twenty miles above Ningpo). They were then unloaded and carried across two embankments to the mouth of a small river flowing from the Pingshui district (a noted tea mart), whence they entered a large canal communicating with Shaoshing, and with Shaoshan, a small city on the right bank of the Tsien-tang opposite Hangchow. I have been through the route myself and so speak from knowledge. In Polo's time the Tsien-tang fell into the sea between Yuyao and Shangyu, where probably was a port,—possibly called Ngan-pu = Polo's Ganfu.' Thus the massacre of the Arabs and other foreign merchants during the disturbances that accompanied the dying throes of the once great dynasty of Tang, occurred in Canton and not in any port on the Hangchow bay. Canton has always been the great seat of foreign trade from time immemorial.

backwater to the stream of mud which flows down the coast out of the mouth of the Yangtse and which is carried into the bay by the tide. Surveying vessels of H.M. Navy have attempted of late years to enter the bay and survey it, and report an eleven-knot current rushing amidst shoals and quicksands. The bay probably commenced silting up as soon as the exit of the Yangtse direct into the bay, by way of the present Tai-hu lake, was cut off, possibly five thousand years ago. Hangchow is one of the two famous cities of which the Chinese proverb says: 'There is Heaven above but Suchow and Hangchow below.' Both cities are indeed most beautifully situated, land and water combining to perfect their sites; Hangchow lies at the foot of the Tien-mu-shan, the 'Eye of Heaven' mountains, which shelter it from the north-west winter gales, and between the sea on the one hand and the 'West Lake' on the other. The beauties of the site have taxed the descriptive powers of Chinese and Europeans alike. Marco Polo says of it: 'Inside the city there is a lake which has a compass of thirty miles; and all around it are erected beautiful palaces and mansions, of the richest and most exquisite structure that you can imagine, belonging to the nobles of the city. There are also on its shores many abbeys and churches of the idolaters. In the middle of the lake are two islands, on each of which stands a rich, beautiful and spacious edifice, furnished in such a style as to seem fit for the palace of an emperor ¹.' The notorious effeminacy of the people of Kiangsu is in harmony with their luxurious climate and beautiful natural surroundings. Hangchow was visited by Marco Polo in or about A.D. 1290, after the conquest of China by the Mongols, previous to which the city flourished greatly as the capital of the Southern Sung dynasty, A.D. 1127 to 1278,—an offshoot of the Sung dynasty that had ruled the whole empire for 160 years before, and were driven south by the irruption of the 'Kin' Tartars, who, after A.D. 1127 and until their conquest by Genghis Khan, divided the empire with the southern Sung; Sze-ma-kwang, the historian, and Chu-hi, the orthodox commen-

¹ The Si-hu=West Lake, is an artificial, not a natural lake; it was inside the city in Polo's time, the wall then running by the Tien-tu temples and skirting the river some seven miles above the present city. This accounts for the length of the walls and the number of the bridges as given by him.

tator of the Confucian classics, shine among the galaxy of poets and philosophers who made the Sung period the Augustan era and the city of Hangchow the Rome of mediaeval China. This literary activity was not extinguished under the Mongol rule; Kublai Khan was himself a patron of literature and would appear to have left the Chinese unmolested so long as the provinces contributed punctually to his revenue at Peking. As seems to have been the case with each successive conquering dynasty that invaded the fair land of China, the hardy northerners succumbed to the luxury and civilization of the south and became effete; misrule grew rampant, until at last the exasperated people succeeded in throwing off the yoke and in re-establishing a native dynasty. This occurred with the Mongols, after sixty years of rule only, during which period nine of their emperors sat on the 'Dragon Throne.' The leader in the ousting of the Mongols was a poor Buddhist priest, who successfully headed a rebellion which resulted in his gaining the empire and founding the Ming dynasty, with Nanking for its capital, A.D. 1368. The next city of importance, and one even more familiar to Europeans than the capital itself, is Ningpo, situated one hundred miles to the east and south, on a small river, the Yung, that falls into the sea ten miles lower down, almost immediately opposite the island of Chusan. This fine city is built in the midst of a rich rice plain surrounded by an amphitheatre of lovely mountains open to the sea of the Hangchow bay in the north. Ningpo was made a Treaty Port in 1842, and in the old sailing-ship days enjoyed a direct trade with foreign countries; since the advent of steam its exports have been diverted to Shanghai and the trade of the place is now entirely in Chinese hands. The natives have lately established cotton mills which pay handsome dividends, and with which the foreign-managed mills of Shanghai are unable to compete; these latter are now (1903) mostly in difficulties. Chinese labour in foreign employ is not cheap, and requires conscientious European supervision to remedy the carelessness and indifference of the workmen in order to render it efficient; but European supervision in the East is necessarily so expensive that it outweighs the gain from the low wages which the native is willing to accept. This is the crux of all 'foreign' industrial enterprises, at least in North

China. Midway between Ningpo and Hangchow, and connected with both by canalized rivers, dammed by mud weirs up which the junks are hauled by windlasses, stands the city of Shaoshing, sometimes called the Venice of China, from the canals that thread its principal streets, and further noted for the skill of its accountants, who are in great demand in mercantile offices at Shanghai. All this region was devastated by the Taiping rebels in 1862, causing untold misery to the industrious inhabitants, of which the writer, who was at that time resident in Ningpo, was a harrowed witness. After a few months' occupation the rebels were driven out by a British fleet under Commander Roderick Dhu, who breached the walls of Ningpo city for that purpose. During the cruel war of 1841, Ningpo submitted peacefully to the British, who confined hostilities to the assault on the fortress of Chinhai at the mouth of the river and the capture and occupation of Chusan. The archipelago of that name consists of about one hundred islands, all mountainous and fertile; the chief is Chusan itself, upon which stands the city of Tinghai, the administrative centre of the group; Chusan is a rich and beautiful island twenty miles east and west by ten miles in width. The other best known island of the group is Puto, about four miles long, which lies to the east of Chusan. This island was given to the Buddhists in the Tang dynasty and is still in possession of the priests; it is covered with temples, many now in ruins, and is visited by pilgrims from all parts of China, especially women who go to pray to Kwan-yin Buddha, the Virgin Mary of the Buddhists, for male offspring, but who are forbidden to pass a night on the island (in Mount Athos women may not even land). In the extreme south of the province, in latitude 28°, is the city of Wenchow, also noted for its monasteries and picturesque scenery, and which was made a Treaty Port in 1877; a fine quality of tea, besides bamboo paper and rape-seed oil, is produced in the district, but the trade is entirely in Chinese hands and there are no foreigners, outside of consular and customs officials, established there.

The other intermediate province is FUKIEN, which lies immediately to the south of Chekiang and which is wholly mountainous. Its area is 46,000 square miles and it is credited with

20 millions of inhabitants; it forms a parallelogram, 270 miles NE. and SW., by 170 miles NW. and SE., the longer axis of the province coinciding with the prevailing run of its principal mountain ranges. It is bounded on the west by the province of Kiangsi, the crest of the Wu-yi range, celebrated as producing the finest tea in China, if not in the world, forming the water-parting; on the south by the province of Kwangtung (Canton), on the north by our other intermediate province, Chekiang, and on the east by the Formosa Channel and the Pacific Ocean. The island of Formosa was, up to 1895, a part of the government of Fukien, but in that year Formosa was ceded to the Japanese as a portion of the huge indemnity which they succeeded in extracting from the distressful empire. The interior of Fukien, up to its western border, presents a succession of steep valleys difficult of access, producing but a bare subsistence for their inhabitants, who have the reputation of being the rudest and least educated of all the peoples of China, and were those who offered the most desperate resistance to the Manchus; its sea-coast of bold precipitous granitic rocks is deeply indented and fringed with lofty islands, creating numerous sheltered inlets at the head of which stand the principal cities of the province and the mouths of its principal rivers. The chief of these is the Min, at the head of whose estuary and at the upper end of a bold and picturesque gorge is situated 'Pagoda Anchorage,' a wide reach forming the harbour for sea-going vessels, and fed by the narrower Min, which descends from Fuchow, the provincial capital and nominal port, fifteen miles higher up, in a stream two to three hundred yards wide.

The river Min is formed by the union of three large streams at Yenping-fu, an important mart situated near the centre of the province and about one hundred miles above Fuchow, which drain all but the south-east corner, which last is drained by the Kiu-lung river, falling into the sea at the Treaty Port of Amoy. The Min river and its affluents are well supplied with water all the year round, and, notwithstanding that they are obstructed by a constant succession of rapids, serve as a sufficient means of intercommunication, owing to the art with which the Chinese, better than any other people, succeed, with infinite toil, in navigating rapid rivers: the transit is extremely tedious, as

on the Upper Yangtse, and the trackers have high cliffs to scramble over here as there. An early writer in the *Chinese Repository* says of the Min : 'Bold, high and romantic hills give a uniform yet ever varying aspect to the country, but it partakes so much of the mountainous character, that it may be truly said that beyond the one plain of the capital we saw no plain even of small extent. Every hill is covered with verdure from the base to the summit. The less rugged were laid out in terraces rising above each other sometimes to the number of thirty or forty. On these the yellow barley and wheat were waving over our heads. Here and there a labourer, with a bundle of grain which he had reaped, was bringing it down on his shoulder to thrash out. Orange, lemon and mulberry, with other trees, shaded the narrow strips along the banks, half concealing the cottages of the inhabitants.' The Min of Fukien, of a certainty, in either beauty or usefulness to its inhabitants, yields the palm to no other river in the world, and it is doubtful whether any navigable river possesses such a magnificent entrance from the sea ; there is no delta ; the channel, ten to twenty fathoms deep, leads between lofty cliffs, emerging from which the river opens out in the basin of Pagoda reach, a lake-like expanse in an amphitheatre of verdure-covered mountains two to three thousand feet in height. Ten miles further bring us to the capital, built in a valley interspersed with tree-clad hills, with high mountains surrounding it ; nearly the whole valley being covered with houses and picturesque temples. An old stone bridge of sixty arches spans the river and connects two quarters of the high-walled city, intervening spaces being filled with green paddy-fields and bamboo groves. The river, in the length of its longest fork above Yenping, flows for a distance of 250 miles above the capital, giving access to no fewer than twenty-seven walled cities on its banks. Fortune, in his quest of the tea-plant, traversed Fukien as well as Chekiang, and in his *Tea Districts* has described the scenery of the 'Bohea' mountains, which are famous in Chinese poetry and paintings, and the outlines of which have inspired much of the fantastic mountain scenery which Chinese artists delight in depicting. Fortune tells us of 'the picturesque grouping of steep rocks, lonely temples on jutting ledges and hidden adits, alternating

with hamlets along the banks of the stream which carries away the produce to market.' The Bohea tea, prepared as congou (meaning 'worked,' i.e. fermented tea-leaf), is esteemed by Chinese the best in China, and especially, after two or more years preservation in tin-foil, as a panacea for indigestion and migraine: its praises are frequent by the poets of the Sung period.

Fuchow is one of the five original ports opened to foreign trade by the Nanking Treaty of 1842. During a generation of merchants, who made large fortunes in the trade, the Fukien teas had an equal reputation abroad and the export both to England and the Colonies was a large and flourishing business, giving employment to the celebrated tea clippers of the period (now, alas! extinguished by prosaic steam), whose neck-and-neck races home created more excitement than those of the Derby at Epsom; but in the 'seventies' the quality of the teas began to deteriorate, and this fact, coupled with the increasing competition from India, at length ruined the trade and those engaged in it, and Fuchow is now but the shadow of past greatness. The chief export to-day is timber, of which large quantities are shipped up the coast, chiefly in the picturesque, painted Fukien junks—paipiku, meaning 'white sterns,'—but this trade is diminishing, the poles getting smaller in size and quantity as the forests are being cut away, while lumber from Puget Sound is cheaper and better.

The second Treaty Port in the province, likewise opened in 1842, is Amoy, situated in the embouchure of the Lung river in latitude $24^{\circ} 40'$ north, at the head of an extensive bay, rendered picturesque by mountainous shores and the rocky islands which defend its entrance. In the eighteenth century Amoy, and in the thirteenth century Chinchew, situated at the head of another fine bay thirty miles to the north, monopolized the trade of China with foreign lands, large fleets of junks sailing from these two ports with the north-east monsoon to the 'Straits' and Java, returning the following summer with the setting in of the south-west monsoon. Marco Polo, who reached Zayton, the port now, after much discussion among antiquarians, generally accepted as Chinchew (mandarin pronunciation, Chuanchou), after five days' journey from Fuchow, says: 'At this city is the haven of Zayton, frequented by all the ships

from India . . . and by all the merchants of Manzi, for hither is imported the most astonishing quantity of goods and of precious stones and pearls. . . . For it is one of the greatest havens in the world for commerce.' It was from Zayton that Kublai Khan's expeditions to Java and Japan sailed, and hence the Arabs are said to have exported silks, sugars, and spices after the abandonment of the port of Kanpu in the Hangchow bay. Subsequently Zayton was replaced by Amoy as a more convenient port for the junk trade, as it remains to-day for the steamer traffic of the coast. Chinchew acquired a short notoriety in the 'thirties' as a port of call for the opium smugglers of that period, and has since lost its former importance. The harbour of Amoy is now considered the best on the coast, and a flourishing and beautifully situated foreign settlement on the island of Kulangsu, opposite the crowded native city, has grown up there; the firing and packing of tea-leaf is the chief foreign industry; there is also an active interchange of native products with Hongkong and the other coast ports. Thirty-five miles inland from Amoy, on the banks of the Kiu-lung river that falls into the head of the bay, is the prefectural city of Changchow, famous for the bridge that here spans the river, exhibiting the solidity of the works of ancient times: this bridge is eight hundred feet long and consists of granite monoliths stretching from one abutment to another. It is known as the Polam Bridge and is truly a Cyclopean work, and one of the few lasting monuments of antiquity to be found in China; each one of its granite monoliths is estimated to weigh 100 tons. Amoy and Chinchew are the chief ports for the great emigration that goes on from Fukien to the Straits Settlements and the Dutch Colonies; Fukien seems always to have had a larger population than it could provide food for, and hence is the province in which infanticide chiefly prevails. The Chinese emigration to the 'Straits,' America, and Australia, which totals 200,000 annually, is derived exclusively from Fukien and from the two Kwang provinces (where similar conditions prevail), while the northerners who emigrate, notably those from the arid province of Shantung, go to Manchuria and the Liaotung peninsula. The people of Fukien are active and energetic, and they are not debilitated by the foot-binding of their women, which is mostly

confined to the wealthier class, unlike the Yangtse and northern provinces where the very poorest follow this pernicious fashion. The Fukienese were likewise the last to submit to the Manchu conquest and to the revolution in dress imposed upon the people by their conquerors ; to this day the Fukienese conceal the pigtail in a becoming black turban. As late as 1674, the Fukienese, under their then Viceroy Keng Ching Chung, in the thirteenth year of the famous emperor Kanghi, attempted unsuccessfully to throw off the Manchu yoke. The long isolation of Fukien is exhibited in the dialect spoken by the people, of which, while the construction is the same, the pronunciation differs *in toto* from that of the rest of China, and renders their speech quite unintelligible to inhabitants of other provinces: as an instance—Fuchow is pronounced in Fukien, Hokchiu ; Amoy is the local rendering of the ' mandarin ' Hsia-men, and Quemoy (Golden Gate), an island in the Amoy bay, is the equivalent of the mandarin pronunciation, Chinmen.



Polam Bridge, Amoy.

CHAPTER IX

THE SOUTHERN BASIN. YUNNAN TO CANTON

THE four southern provinces which lie stretched east and west, to the south of the Yangtse basin and to the north of Tongking and the China Sea, are Yunnan, Kweichow, Kwangsi, and Kwangtung. The two latter are drained entirely by the West or Pearl River and its forks, which fall into the China Sea a short distance below Canton,—as are also portions of the two former provinces; *Northern* Yunnan and Kweichow, however, drain into the Upper Yangtse, while Southern Yunnan drains mainly into the Red River of Hanoi, flowing into the gulf of Tongking. In addition to these we find, traversing the south-west corner of the province of Yunnan, the Salwin, draining into the gulf of Martaban, and the Mékong with its delta in Cambodia. The four provinces are all mountainous, with little or no level land outside of the delta of the Pearl River, some high plateaux in Yunnan and a few narrow river bottoms. Yunnan is in fact a south-eastern peninsular extension of the great Tibetan plateau, itself a wide, similarly uneven, highland region in the nature of a plateau from six to seven thousand feet above sea-level, sloping gradually to the south and east, with ranges of mountains rising up to three and four thousand feet higher, with some peaks in the west above the snow-line (here fifteen thousand feet). The plateau is buttressed on three sides by rugged mountains, through which the descent is made to the valleys upon its margin: the Yangtse valley on its north side, the valley of the West River on the east, with those of the Black (i.e. clear water) and Red Rivers of Tongking on the south. These mountains, which in Yunnan run generally north and south, continue eastwards without a break, but at decreasing levels and trending more to the north-east, right across the three other provinces of the basin we are describing—Kweichow, Kwangsi, and Kwangtung; and are projected into the islands off the coast, one of which constitutes the British colony of

Hongkong—the limestones and sandstones of the interior giving way, as we approach the sea, to the well-known decomposing granite formation of the China coast. Yunnan itself has an area of 122,000 square miles, being somewhat larger than Great Britain and Ireland combined. Owing to the devastation of the province by the twenty years' war of the great Mahometan rebellion, which was finally suppressed in 1873, the population is usually estimated at only six to seven millions, but seeing the immigration that has since taken place from Szechuan and which still continues, three millions may to-day be well added to this estimate. Under good government and rulers who should take steps to repair the old roads and improve the communications, support irrigation works and facilitate trade and intercourse, most travellers are of opinion that Yunnan would afford a much larger outlet for the surplus of the overpopulated neighbouring provinces and so double its present population : but the ordinary Chinese officials care for none of these things: their great fear being that improved communications will only facilitate access to marauders, foreign and native ; nor, if willing, do they seem to possess at the present day the organizing power to undertake public works or innovations of any kind ; their only object seems to be to squeeze the last 'cash' out of the impoverished people and to clear out of the wretched country as soon as possible. Under the Manchu system of government the officials are always appointed from other provinces and so are strangers in the land ; while the central government appear to value the province solely for the copper tribute with which it still furnishes them and which they need for the coinage of copper cash ; as General Mesny says (*Asiatic Society's Journal*, January, 1893), 'China has lost a favourable opportunity to benefit her people in Yunnan, and it is now too late to repair the fault: Yunnan will never flourish under Chinese rule.'

The name Yunnan means 'South of the Clouds,' i.e. south of Szechuan, a region of perpetual cloud and calms, an aerial Sargasso sea where the clouds seem to collect and hover undisturbed between the region of north-west gales, north of the Tsing-ling and the wind-swept plateau of Yunnan, with its constant gales from the south and east. Thus the Chinese proverb

says : ' In Szechuan the dogs bark when the sun shines ' ; but Yunnan enjoys almost perpetual sunshine, and the strong winds together with its high elevation make of Yunnan a cool and healthy climate for Europeans, notwithstanding its situation between the 22nd and 28th degrees of latitude north. The deep ravines in the west of the province are, however, notoriously malarious, owing to the stagnant air in the confined gorges ; the Chinese farmers there, in order to cultivate the fertile strips of valley bottom, descend in the day-time, returning to the plateau to sleep—a night spent in the valley being reckoned fatal ; nor are the pack-mules and ponies used in the carrying trade between the Red River valley and the Yunnan plateau ever allowed by their owners to pass a single night in Manhao. These intervening ravines have had the effect of restricting intercourse with the Irawaddy valley to very narrow limits, although armies *have* passed from China to Burma, marched across seemingly impassable regions by the determined leaders of whose exploits the records of the ancient dynasties tell us. Yet on the whole there has been no intermingling of peoples in this direction, and the Burmese form a distinct race, though allied to the Shans and Siamese. It is estimated that more than half the population still consists of aborigines, in appearance a cross between the Siam and Mongol types and known to the Chinese as ' Miaotse,' who hold their own in the more mountainous parts and who, while paying tribute, are more or less independent and unmixed with the Chinese immigrants. In South-western Yunnan, on the confines of Siam and Burma, the soil is richer than in the north and east (though the mineral wealth is there greater), and the people consequently are better off ; whereas in Eastern Yunnan maize is the ordinary food of the people and rice the luxury of the rich. In the south and west the fertile plain-valleys (*Tiefebenenn*) are more numerous and more extensive, the undulating country becoming increasingly level as the land drops towards the gulf of Siam ; a celebrated *Tiefebene* in the west, seven thousand feet above sea-level, is the three mile wide strip on the Tali shore of the Erhai Sea, at the foot of the fifteen thousand feet high Tien-tsang range ; on the eastern shore the lake washes the cliffs of the ten thousand feet Meng-hua range, and no cultivable land inter-

venes. One-third of the cultivable area of Yunnan is said to be devoted to the poppy, from the capsules of which the juice is tapped in April, after which a pea crop is sown in its place. It is noteworthy that the aborigines, although they grow the poppy extensively, do not themselves smoke it ; the crop is a sure one unless injured by premature rains, which may wash off the exuding juice, but the rule in Yunnan is for rain to fall from May to September, leaving the remainder of the twelvemonth bright and clear.

The old trade route between Yunnan and Burma, passing through Tengyueh in the extreme west of the province, and on the farther side of the Salwin, to Bhamo on the Irawaddy, is, now that the wild Kakyens have been brought under British rule, becoming daily of greater interest. A British Consul has been established at Tengyueh (the scene of the murder of Margary in 1875), to watch over the road and promote the trade with Burma. Tengyueh is situated on the edge of the plateau at an elevation of 5,300 feet and near the head-water of the Taiping river, an eastern affluent of the Irawaddy which falls into that river at Bhamo, one hundred miles to the west. This is from old time the natural trade route, but, owing to the difficulty of reaching the western capital of Yunnan, Tali-fu, and the eastern capital and present seat of the provincial government, Yunnan-fu, by a railway necessitating the crossing the valleys of the Salwin and Mékong and the intervening mountain ranges at right angles, a new experimental route farther south is in contemplation. A railway, starting from Mandalay, goes north-east to the bank of the Salwin, which is to be crossed at Kunlong Ferry in latitude $23^{\circ} 20'$, whence, if ever built, it is to be taken north in Chinese territory and run parallel with the prevailing strike of the mountains, due north to Tali-fu ; but this line will pass through a wild thinly-peopled country and it is doubtful if a private company will be found to build it¹. The old trade route, via Tengyueh to Bhamo,

¹ Rangoon, owing to its greater proximity to the 'West,' is the natural port of entry for European goods into Yunnan, and it would seem wise to connect up the province with the existing Burmese railways, even at a loss, rather than to allow the rapidly increasing trade (vide Mengtse I. M. Customs' Reports) to be diverted into foreign channels. But the existing Burma railways would immediately profit by the transference of the trade to their

looks at first glance the more promising; its practical difficulties, however, are almost insuperable. But when once the road from Kunlong to Tali-fu is built, then the 200 miles extension to Yunnan-fu will be found comparatively easy:—the prolongation thence to the Yangtse valley by the main trade route, which goes via the Yunnan cities of Tengchuan and Chaotung, is again too costly a project for an unassisted private company to undertake; while the Yangtse is easily navigable from Sui-fu down, and Szechuan produce must inevitably continue to follow that, the natural channel to Shanghai and the sea. The French are now actively constructing, and expect to open in 1908, a railway connecting Yunnan-fu with Tongking by way of the Laokai-Mengtse ascent, the French Government having guaranteed the interest on the railroad debentures to be issued for the purpose; it would seem that it now but remains for our Government to follow suit and assist a British company to connect Yunnan-fu with Burma. Another route to connect British Burma with Yunnan is that proposed by Mr. Colquhoun. This road starts from Moulmein, at the mouth of the Salwin, and, passing farther to the east than either the direct Bhamo line or that by the Kunlong Ferry, outflanks the high parallel ranges of the Salwin and Mékong rivers and traverses the easier country of North-west Siam, past the town of Zimme, then on through the Shan state of Kianghung (2,000 feet elevation and recently transferred by treaty to the government of Yunnan), where the line crosses the Cambodia or Mékong river, and so goes north into Yunnan, entering the province near Szemao, the new frontier Treaty Port opened in 1896. Szemao, which is situated on the southern edge of the Yunnan plateau, at an elevation of 4,700 feet, is the residence of a British and of a French Consul, and, being the centre of a fertile district, may, given railway communication, become an important mart; at present, owing to want of communications, its trade is insignificant, notwithstanding its favourable situation in the richest agricultural region of the provinces. An Anglo-French combination, the 'Syndicat du Yunan,' has lines, to an extent probably sufficient to recoup the temporary loss on the proposed Tali-fu extension. There can be no possible doubt, however, that the Rangoon merchants and importers would at once find a great new market opened to them—chiefly for cotton yarn, Manchester goods, kerosene, and hardware.

recently obtained a concession for mining in the province, but the concession will prove absolutely worthless under the actual régime, the Chinese officials being past-masters in planning such obstructions to European enterprise in the country, that, like water wearing out a stone, they will, failing strong diplomatic pressure, in time wear out the patience of the richest trading syndicate and nullify their work. It is to be hoped that this question will be tackled seriously, if only in the interest of the impoverished inhabitants. The great limestone plateau of Yunnan, although in parts composed of a poor gravelly soil, contains a countless number of fertile valleys interspersed amidst its mountains—the now dry lake bottoms of ancient ‘sinks’—and, while the rainfall falls short of that in Szechuan, yet it is still sufficient to fill innumerable water-courses and many large fresh-water lakes. As General Mesny, who resided many years in Yunnan and in the adjoining province of Kweichow, truly says: ‘The natural resources of Yunnan are great indeed. It produces everything necessary for the sustenance of a dense population, despite its present poverty-stricken appearance. Opium, hemp, flax, rhubarb, and other drugs abound. Maize, rice, wheat, and other cereals are grown almost everywhere; pears, oranges, lemons and other fruit, potatoes and other vegetables are cultivated. . . . Fine oxen, excellent sheep, goats, pigs, dogs, ponies, asses, mules, fish, ducks, geese, peacocks, and fowls are reared and eaten by all who can afford such. . . . Milk, butter, cheese, tea, sugar, and salt are also produced, . . . and at reasonable prices. Clothing stuff is, however, very dear, although coarse flannels and strong silks are woven from native produce, and an abundance of fine wool is available for manufacturing the best of cloth. . . . The mineral wealth of Yunnan is something enormous and almost inexhaustible. . . . Rubies and sapphires, garnets and topazes, amethysts and jade abound in the western prefectures; gold, silver, platinum, nickel, copper, tin, lead, zinc, iron, coal, and salt also abound. Copper is especially abundant; its ores are of excellent quality and have been worked for ages in over one thousand different places. Yunnan . . . has been administered entirely as a Chinese province for six centuries, yet nothing has been done by the Chinese government for the benefit of the native tribes whose country

has been so forcibly annexed to the Chinese Empire. . . . The wealthiest of the natives are neither fed, dressed, nor housed with anything like comfort, not to say luxury. Their best food is frugal indeed, and their best clothing is far inferior to that worn by our servants in Shanghai, whilst most of their houses would hardly be considered good enough for the cattle on a respectable English farm.'

The contrast between the magnificent natural resources of the province, as described by General Mesny, and the poverty of the people is doubtless due in the main to the constant unrest in the province ever since it has come under Chinese rule ; this unrest is not due to natural turbulence, for the Yunnanese are a quiet, submissive, not to say cowed, people ; but to the fact that Yunnan has lain far away from central control, and so the rapidly succeeding satraps, who have bought their posts in Peking, have to make good their investment in a limited time and take no permanent interest in the province. The people too have only just commenced to recover from the devastating wars of 1855-1873, have not had rest to accumulate, and live mainly from hand to mouth.

It is not easy to explain how Yunnan, with the same latitude and a similar elevation to that of the Transvaal, with a climate in which the summer heat rarely exceeds eighty degrees and the winters enjoy perpetual sunshine, should possess a population so apathetic, while again, farther east and equally touching the tropic of Cancer, we find the most active race in China, the Cantonese. The explanation probably is, that in Yunnan, as in Kweichow, the aboriginal tribes, the Miaotse, have neither been driven out nor assimilated by the more industrious Chinese race, while periodical rebellions have led to internecine slaughter. At the present day, the almost universal consumption of opium, the growth of which the soil and climate of Yunnan appear singularly to favour, has added its deadening influence. As in Szechuan, the mass of the people are engaged on hard manual labour ; but here, on insufficient food, opium acts as a great stimulant and food economizer at first, but increased reliance on it soon wears out its victim, and thus few of the opium-smoking coolies, which one meets in gangs on the Yunnan roads, outlive their fortieth year.

The Burma route into Yunnan has been so much put forward

of late years that we have devoted some space to discussing its merits; but, in truth, the three other main trade routes are of greater actual importance, being in full swing at the moment, both for the export of Yunnan's most valuable product, opium, and for the import of yarn and cotton-cloth from Shanghai and Hongkong. These are: in the north, the high-road to Szechuan, past the famous customs barrier of Lao-ya T'an to Sui-fu, by which the bulk of the foreign goods now sold in Yunnan passes; this, the Yangtse route, though by far the longest, being in the end the cheapest, owing to the heavier taxes incurred in French territory by the Red River route, as

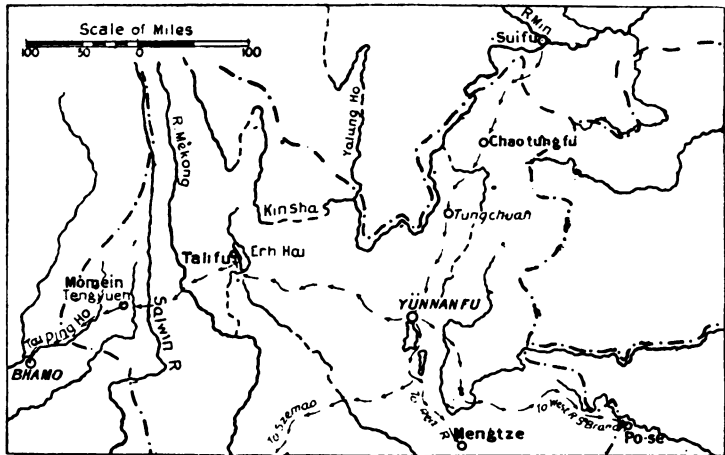


FIG. 20.—Trade Routes from Yunnan.

well as by the Chinese customs on the route, via Po-sé, through Kwangsi and Kwangtung to the east. This last is the natural route to Hongkong, but of late years it has been little used owing to the disturbed condition of the Kwangsi province.

The northern or Yangtse route leaves Yunnan-fu (commonly known as Yunnan-seng, i.e. the provincial *capital*) by a road which, crossing a series of mountain ridges, passes through the prefecture of Tungchuan and on, over the dividing range, past Chaotung, into the valley of the Heng-kiang and along the gorges of the Laowatcan river, by a rapid descent of six thousand feet to the valley of the Yangtse, at

a point a short distance above the shipping mart of Sui-fu in Szechuan, a land journey of twenty-four stages. This is to-day the main trade route uniting northern Yunnan and the provincial capital with the outer world. But the shortest of all routes by which the province can communicate with the sea is that by the Red River to the Tongking Gulf: this river rises in Western Yunnan in the range of mountains to the south of Tali and flows nearly the full length of the province east and west, but it is not navigable until after its descent into French Tongking. The disadvantages of this route are—the difficult land journey of eleven stages from Yunnan-seng to Laokai, the head of navigation, and the insuperably dangerous and uncertain navigation of the river itself. The French Government would seem at last to have appreciated this fact and to have abandoned the project of improving the river, and have now decided to build a railway instead, which, when completed, will necessarily form *the* great artery of traffic of the province. This railway follows the valley of the Namti, an affluent which, rising on the plateau above Mengtse, falls 4,000 feet in a torrential stream which has cut out a deep, precipitous, and highly malarious gorge, into the Red River, at the French boundary town of Laokai. Mengtse is now an Imperial Maritime Customs station, having been made a Treaty Port by the 'Convention additionnelle' between China and France in 1887, as the town in the province of Yunnan to be opened to Franco-Annamite trade, for which the Red River was to serve as a thoroughfare; and (in order to cut out Hongkong) the Chinese Government was forced to admit imports from French territory at seven-tenths of the tariff rate of five per cent. *ad valorem*, payable generally under the Treaty of Nanking, and to pass exports from China into French territory at six-tenths of the duty payable by the West River and other competing routes passing through Chinese territory to the coast. So far the conservative Chinese (and there are as yet no foreign merchants established in these 'outside' Treaty Ports) continue to draw their supplies of yarn and piece-goods from Hongkong; but, if the French colonial authorities persist in enforcing high transit dues, Rangoon, as the port nearest to Europe and India, should naturally gain the trade, in preference to the shorter route through French

territory. Tin, however, which with opium forms the chief article of export through the Mengtse customs, is necessarily shipped by the Red River route. This valuable mineral is found in the high mountains (9,000 feet) that bound the Mengtse plain on the south-west, the annual produce being about 3,000 tons. The walled city of Mengtse is beautifully situated in the centre of one of the characteristic Yunnan valley-basins or *Hochebenen*; the plateau stands 3,500 feet above the sea and measures twenty-five miles north and south by twelve miles east and west, and is surrounded by an amphitheatre of wall-like mountains rising two to four thousand feet above the level of the plain. The climate, as of all the Yunnan cities, is most equable and salubrious, although Mengtse has not escaped the bubonic plague which has been ravaging south China ever since the suppression of the great Mahometan rebellion, after twenty years' civil war, in 1873; Europeans, fortunately, are rarely attacked by it.

The third and last of the main routes of approach to the province, and the chief outlet to the east, may, as to time and facilities, be compared with that by Sui-fu and the Yangtse river in the north. The land journey by this route from Yunnan-seng to the Kwangsi frontier town of Po-sé is twenty-five stages, and thence down-stream to Canton in ten to twenty days, according to the state of the river, the journey up-stream occupying about a fortnight longer. The ascent from navigable water up to the plateau is easier and more gradual by this route than by any of the others, and would hence seem to be marked out as the natural route for a railway to connect Yunnan with Canton and Hongkong, and so secure those ports from the threatened diversion of their trade to French territory. Of the countless streams, large and small, that take their rise in the great Tibetan plateau, none are navigable within the plateau owing to the steep incline of their beds: and so of the rivers in Yunnan, none are navigable until the border is crossed and the descent from the plateau to manageable levels completed. The remoteness of the province from the centre of government in pre-steam days can be appreciated by the fact that Yunnan-seng is distant by land road two thousand miles from Peking, and that the journey comprised one hundred stages and usually occupied the officials appointed from

Peking four months to reach their posts. How, with such mule-tracks, called roads, as exist, the armies of the Mongols succeeded in overrunning the whole of Asia and part of Europe during one man's lifetime is one of the puzzles of history. The two provinces of Yunnan and Kweichow form together one Vice-royalty, that of Yun-kwei, with its seat at Yunnan-seng. The sister province now demands a short description.

KWEICHOW, the second province traversed in our progress from west to east across South China, lies midway between the Yangtse and West River basins, the rivers that rise in its mountains draining respectively north and south into both basins, the dividing line being the water-parting formed by the range which, following the prevailing direction of the mountain ranges throughout China, crosses the province from south-west to north-east immediately south of the capital, Kweiyang, which stands almost exactly in the centre. The province forms another step in the descent of the Tibetan plateau to the east, and slopes gradually towards the sea from 5,000 feet elevation on the Yunnan border in the west to half that height where the Kung-tan and Yuan rivers, in rapid-obstructed but navigable channels, flow to the Yangtse valley in the north and east : it is the same in the Miaotse territory in the south, where the main branch of the West River takes its rise, and, after traversing the province of Kwangsi, falls into the sea at Canton. The province of Kweichow, owing to its inaccessibility, the rugged character of its surface, and its position forming the mountain nexus of the highlands to the north, east, and south, may be regarded as the Switzerland of China proper, although it does not compare with Switzerland either in the height of its mountains or in the beauty of its scenery ; its area is over four times as great, being 67,000 square miles as against Switzerland's 15,500 ; its population 8,000,000 as against 4,000,000 of Swiss. More than half the population consists of aboriginal tribes, called by the Chinese Miaotse ; these interesting peoples occupy the southern and eastern portions of the province and have succeeded in preserving a semi-independence better here than elsewhere in China, by confining themselves to pathless mountains where Chinese troops do not care to follow them : they retain their own dress and customs : that of the women being a short

sailor jacket leaving the chest exposed, with an accordion-pleated skirt of silk or cotton according to their means and elaborately embroidered, with a turban round the head ; that of the men being robes of native cotton cloth, dark blue or black, girdled with embroidered sashes not dissimilar to those worn by the Chinese ; both men and girls wear one or more silver rings round their necks and their youths carry a six-tubed flute resembling the bass of an harmonium.

'*Tityre, tu patulae recubans sub tegmine fagi*' inevitably recurs to one's memory as one contrasts these joyous aborigines with their stolid Chinese neighbours ; they are a cheerful, kindly, timid people, frank in manner but suspicious of strangers: intercourse between the sexes is free and unrestrained, and as they are generally illiterate they are regarded by the Chinese as utter barbarians. The Lolo branch, inhabiting Northern Yunnan and Southern Szechuan,—in which latter province an independent tribe of more warlike habits dwells amidst the inaccessible snowy 'Mountains of the Sun' between the valleys of the Yangtse and the Yalung,—are reported by Baber to possess a written language which would appear to be formed from abbreviated Chinese characters for common words, not unlike the Katagana of the Japanese derived from the same source. The distinction of race between the Miaotse and their civilized Chinese neighbours is not marked like that between the Mantse and the Chinese of Szechuan ; the Mantse are distinctly a race apart, wedged in between the Chinese and the Tibetans, with the features of neither, but rather with those of the Caucasian races farther west. Indeed the Miaotse of Kweichow—the tame Miao, as the Chinese call them—who have adopted the dress and civilization of the latter are hardly distinguishable from the Chinese themselves ; they would thus appear to be the real aboriginal inhabitants of South China crossed with the races that at various periods have invaded their territory—the Shans from the south, and the Chinese, with their Tartar blood, from the north—and who, while retaining their separate language and habits, are little more distinguishable from the Chinese than are the Welsh from their Saxon neighbours in England.

Kweichow, like Yunnan, contains numerous fertile *Hoch-ebenen* interspersed, surrounded by amphitheatres of mountains,

each the seat of the capital of one of the thirty-three districts or counties into which the province is divided ; rice, maize and tobacco are the principal crops, with abundance of excellent fruit ; nutgalls are collected in the oak forests and form an important article of export to foreign countries, notably to Germany. Excellent silk pongees famous for their durability are exported in quantity to Chungking, where they compete with grass-cloth for the summer robes of the wealthier classes. Opium is also a valuable crop to the agriculturist as now in almost every province of the empire. Minerals abound here as in Yunnan ; the cinnabar mines in the north-east being now exploited by the Anglo-French Corporation, an international syndicate, who find access for their machinery by way of the Tungting lake and the Yuan river. Of late there has been a considerable immigration into the province from Szechuan, a province which, notwithstanding its great fertility, is unable to feed its ever increasing population ; in the summer time the traveller meets whole families of decent farming people camping by the roadsides and carrying food for the journey with them. In this way does the population of China tend to homogeneity by constant migration from congested districts to lands in neighbouring provinces rendered vacant by war and famine ; or, as we see outside the Great Wall, to regions hitherto exclusively pastoral. The province gives rise to three important streams which become navigable for small craft on its borders, but all obstructed by dangerous rapids : the Kung-tan, which drains the northern half and flows into the Yangtse sixty miles below Chungking ; the Yuan, which has its source in the neighbourhood of the capital and flows east and north-east, athwart the province of Hunan into the Tungting lake ; and lastly, the Hung-shui (Red Water), which rises in the Miaotse country in the south and goes to form the northern and main branch of the West River of Kwangsi. The mountainous regions of Kweichow contain a larger proportion of the independent aboriginal tribes, Miaotse (the equivalent of the Indian Mlech cha, i.e. Barbaroi, people speaking an unknown tongue), than any province of China.

Leaving Kweichow, we descend another step into the valley of the West River which drains the territory of Liang-kwang, the two Kwang provinces—Kwangsi and Kwangtung (Canton).

The two provinces are united under one Governor-general in the so-called Viceroyalty of Liang-kwang, the seat of government being at the city of Canton, whither it was moved from Chao-king, a prefectural city on the banks of the West River and a hundred miles further inland, in the eighteenth century ; the removal being due to the need of the Viceroy's presence in Canton to 'control' the relations of the Chinese with foreigners, who were at that period flocking to Canton to trade in yearly increasing numbers. The province of Kwangsi is wholly mountainous, but the elevation is lower, two to three thousand feet being the average height of the mountains as against six to nine thousand in the provinces on its north and west, Kweichow and Yunnan ; it is well watered by the West River, whose three forks drain the three main valleys into which the province is divided and unite at the newly opened Treaty Port of Wuchow, situated in the extreme east on the borders of Kwangtung. The West River of South China has many analogies with the great Yangtse river of Central China ; from its extreme source in Yunnan, where it is known as the Hung-shui or Red Water, to its mouth below Canton, the distance is 1,000 miles ; its southern fork, the Pearl River, which also has its source in the Yunnan plateau, is nearly as long, and is navigated by small boats right up to the Yunnan border, to the frontier mart of Po-sê ; like its great prototype, it has cut through the limestone ranges athwart its path in picturesque walled-in channels or gorges constricting the water-passage, and, at the season of the summer rains, causing rises in the river level of fifty to sixty feet. The northern fork, which falls into the main river at Wuchow, takes its rise in the north-eastern corner of the province, on the borders of Hunan, and, as we noticed in our account of this latter province, is connected by a short canal with the upper waters of the Siang river, thus giving through communication to the Tungting lake and the Yangtse, although, since the advent of steamers on the coast, the route has fallen into disuse. The capital city of the province, Kweilin, meaning 'Cassia grove,' stands on the upper waters of this northern fork in a wild, little-visited region ; indeed, a great portion of the province is still occupied by Miao or aboriginal tribes, especially in the south along the Tongking border ; the Chinese, as usual where aborigines are still numerous, confining themselves

chiefly to the more fertile river bottoms where rice is cultivable. Wide river bottoms extend along the shores of both the south and main forks of the West River, and in these is found the bulk of the population ; a Chinaman is not happy without rice, and no southern or central Chinese will live outside the range of paddy-fields if he can possibly avoid doing so. Out of the fifty-four counties into which the province is divided, thirty-four are governed by aboriginal Tu-sze or headmen under Chinese supervision ; the inhabitants generally have a reputation for turbulence, and it was in this province that the great Taiping rebellion of 1849-1865 had its origin, and that a new rebellion has broken out this year (1903), and, as we write, the rebels are reported to have made themselves masters of three-fourths of the province¹. Since 1894 the province has been connected by rail with Tongking, a daily train now running between Hanoi, the capital of Tongking, and the Chinese city of Lungchow just across the border. Lungchow was opened to Franco-Annamese trade as one of the results of the French war with China of 1885, and was made a Treaty Port and station of the Imperial Maritime Customs, but so far the trade is almost nil ; the railway taps a wild Miaotse country, and until it is prolonged to the Chinese mart of Nanning on the Pearl River, one hundred miles distant, will be of little practical use, except possibly as a convenient means of forwarding troops from Tongking to China. Lungchow is a Chinese military station, situated in one of the many circular valleys surrounded by mountains that characterize South-west China and where we find Chinese in the plain and aborigines in the mountains ; it stands on the Tso-kiang or Left River, which rises in Tongking, and, after a course of about a hundred miles, falls into the Pearl River thirty miles above Nanning. Continuing *up* the Pearl River we reach the frontier town of Po-sê, by which, as we showed in our account of Yunnan, we attain the easiest ascent to the Yunnan plateau from the outside world, and by which the railway about to be built from Hongkong to Canton will doubtless, some day, be prolonged into Yunnan. The other Treaty Port of Kwangsi, Wuchow, has much brighter prospects before it than Lungchow can possibly enjoy ; to continue our analogy

¹ News of the final suppression of this rebellion, accompanied by great barbarities, by Viceroy Tsen Chun-hsüen is now to hand.

of the 'West' with the Yangtse river, we may compare Wuchow with Hankow; and Canton, 220 miles below, with Shanghai: for Wuchow is situated at the point to which all the navigable branches of the West River converge, much as Hankow stands at the junction of the Han with the Yangtse, and below the confluence of the Hunan and Szechuan forks of the Great River at the Tungting lake. Wuchow, like Hankow and its sister cities, is one of the earliest places mentioned in the history of its region; in the time of the Han dynasty, this part of China, including Tongking, was known as 'Southern Yueh,' and in B.C. 135 Han Wuti (the Martial Emperor) placed the country under the governor of Tongking. Wuchow was made a walled city in A.D. 592, and was for a long period the seat of the provincial government, which was removed to Kweilin under the present Manchu dynasty in A.D. 1665, probably as a defence against the incursions of the revolted Hunanese. In 1897 steam communication with Canton was inaugurated by the arrival in the port of the stern-wheeler *Nanning* in June of that year, the port having been opened to British (and so to all foreign) trade under the Burmese Frontier Convention with China of the previous year. Kwangsi is famous for its products of cassia, cinnamon and mace, and for a variety of valuable woods drawn from its forests, for which the port of Wuchow is the *dépôt*. Notwithstanding that the tropic of Cancer passes almost through the centre of the province, tropical heat is only experienced in summer; the winters are cool and pleasant and in the higher mountains in the north-west snow is constantly seen. The province has an area of 80,000 square miles or about the same as that of Great Britain, but it is thinly peopled, partly owing to its large unproductive mountain area, but largely owing to the political unrest it has been subject to for the last half-century, beginning with the devastation caused by the Taiping rebellion and later by the war with the French and the exploits of the 'Black Flags' along its Tongking border. During the past two years, as in so many other parts of the empire, and contemporaneously in India, the rainfall has been deficient and the population has been decimated by famine, to which cause the outbreak of the rebellion now in progress may be attributed. The present population is estimated at about eight millions, of whom half are semi-independent aborigines.

The last province in our list, the fourth in our survey of the southern basin and the eighteenth of the provinces of China proper, is in many respects the most important of all, not only in view of the richness of its sub-tropical soil and climate and the marvellous energy and activity of its inhabitants, which has made 'the Cantonese' familiar throughout the world, but farther for the reason that Canton has been for many centuries the only gate open, or half opened, by which the Western world has been able to obtain a glimpse of the wonderful empire behind it. 'From its maritime position, its natural wealth and its convenient harbours, it became in ancient times the seat of an extensive foreign trade, and had an earlier knowledge of foreign nations than any other province. It appears to have been in touch with the Roman Empire, while Arab, Dutch, and Portuguese traders early brought it within reach of Western commerce. It was almost the first field of labour of Roman missions in China, and it was there also that Robert Morrison began, in 1807, the work of Protestant missions. The Hakka section of the province was the cradle of the great Taiping rebellion, and its people are always strongly inclined to revolutionary schemes. These plots are usually fruitless, but the great Taiping rebellion held on its conquering course for years over a wide region of the empire, and it held its own until the moral degeneration of its chiefs under their unexpected successes prepared the way for their defeat and failure. The numerous estuaries of the province, and the complicated network of its rivers and canals, not only lend themselves to legitimate commerce, but have from time immemorial been the shelter and hunting-ground of hordes of daring and formidable pirates¹.'—(Rev. J. Campbell Gibson, M.A., D.D., E. P. Mission).

¹ The word 'Hakka' is the local pronunciation of K'ochia, i. e. 'Guest families': the Hakka being the descendants of immigrants from the north who squatted amongst the natives or 'Punti,' and have been and are always at feud with the descendants of the ancient inhabitants. The Hakkas who are scattered throughout Kwangtung in separate communities, but who in appearance are indistinguishable from other Chinese, possess however one distinction in the fact that their women do not bind their feet, a distinction which throughout the whole of China and Manchuria is only shared by the pure Manchus: a colony of Hakkas that emigrated to Szechuan in the seventeenth century is also found to-day occupying two counties to the west of Chungking, and their women likewise uphold the ancient habit of natural

The province of KWANGTUNG, together with the large island of Hainan, separated from the mainland by a strait twelve miles wide, may be regarded as the last step in our descent from the Tibetan plateau to the sea, the general elevation being gradually reduced as we approach the delta of its chief valley,—that of the West River,—which, in its lowest part, the delta, lies below the sea-level at high water. All the land, with the exception of this delta, a triangle measuring roughly a hundred miles on each of its three sides, is mountainous, the chains following the usual trend of south-west and north-east, with fertile bottom lands watered by perennial streams interspersed,—the rainfall being regular and abundant (70 inches). Kwangtung has to the north three provinces, Hunan, Kiangsi, and Fukien; to the west the sister province of Kwangsi, and on the south the China Sea. The granite mountains of the coast are continued in the large island of Hainan, which rises to an altitude of six thousand feet, and in some three hundred smaller islands, amongst which is Hongkong, with Victoria Peak, 1,825 feet high. The northern

feet: but their example has had no effect upon their neighbours, whose women, rich and poor, have all goats' feet, except in preventing inter-marriage, as (before the introduction of anti-foot-binding leagues inaugurated by a society of philanthropic European ladies in Shanghai) no self-respecting Chinaman would marry a woman with natural feet. The Hakkas do much of the hard work in Canton, and hence foreigners and travellers, noting the numbers of poor women there moving about with naked natural feet, have come to the erroneous conclusion that foot-binding is a luxury of the rich. In the Yangtse provinces rich and poor bind universally, even the beggars by the wayside: the perverted taste of the men is the cause of the persistence in this self-torture by the women. In the north, one may see goat-footed women engaged in field work reduced to moving on their knees to relieve their feet: the women of the rich who lie on couches and have servants to support them when they get up to walk about suffer less than the poor who have to work for their living, and these latter seldom attain to the ideal of the fine lady, which is a shoe two and one-half inches long, although they do their best to imitate their 'betters' and keep in the fashion,—as, unfortunately, do women in countries outside China.

Some writers derive the origin of the Hakkas from Shantung, a province, owing to the merciless devastation of its mountains, now largely barren: the Hakkas would then be the last representatives of the old inhabitants, the bulk of whom were exterminated in the continual wars, from the Kins (Golden Horde, A. D. 1116–1234) to the coming of the Manchus who attacked from the NW. The Shantung people continue to emigrate in large numbers, and Manchuria, Primorsk (Vladivostock, where they do all the hard labour, as in Port Arthur), and the Liaotung peninsula are largely peopled by them. The Shantung people are a tall, manly race;—witness our Wei-hai-wei regiment.

boundary of the province is defined by the Nan-shan chain, the crest of which forms the water-parting between the rivers of Hunan and Kiangsi, flowing north into the Yangtse, and the affluents of the West River, flowing south to Canton and Macao : over this range passes the great road of communication of Canton with the north, across a low pass known as the Mei-ling (Plum-tree Pass). The range averages about two thousand feet, but this convenient notch falls to one thousand feet, and thus a land portage of twenty-four miles connects the headwaters of the 'North River' with the great artery of Kiangsi, the 'Kan' : by this route, in old days, an immense traffic was carried on, in goods and passengers, between Canton, the central provinces, and the north ; by it the different embassies, previous to the opening of the coast to steam navigation, proceeded from Canton to Peking, and different travellers from the time of Lord Macartney in 1793 have left us glowing accounts of the country passed through. As showing the isolation of the great Yangtse basin from South China, we may note here that the Mei-ling is one of the only five principal routes of communication that exist between the two basins : beyond the Mei-ling leading into Kiangsi, we have the 'Lesser Mei-ling,' or 'Che-ling' Pass, one hundred miles to the west, which leads by way of the 'Wu-shui' to Chenchow in Hunan, and ultimately on by the Siang river to the Tungting lake—this appears to be the proposed line of the recently sanctioned Canton-Hankow Railway ; the other three are—the Kweilin route from Kwangsi, another hundred miles to the westward, also leading into Hunan by way of the Siang river ; the route from Kweichow province down the Yuan river to the Tungting lake, also across Hunan and starting from Kweiyang-fu, the capital of the province, two hundred miles farther west (from Kweiyang likewise proceed two minor roads : one down the dangerous Kungtan river to Fuchow on the Yangtse ; one via Tsunyi to Chungking) ; and lastly, in the far west at five hundred miles distance from Kweiyang, the land road from Yunnan-seng (the capital of Yunnan) past Tungchuan and Chaotung down into the Yangtse valley at Sui-fu. A sixth road, of some local value, leads from Yunnan-seng in three marches to the banks of the Kinsha river, two hundred miles above Sui-fu, which it crosses by ferry into

Hui-li-chou, and so down the Chien-chang valley to Ningyuan and Kiating. The traffic on all these routes, so far as water communication is not available, is carried mainly by human beasts of burden, travellers being conveyed in sedan-chairs and merchandise slung from the native 'pientan' or carrying pole; the water communication, where it exists, is slow, uncertain and dangerous.

The area of Kwangtung, including the island of Hainan, is 79,500 square miles, about one-fifth less than the area of Great Britain. The province stretches along the southern seaboard of the empire for a distance of nearly 800 miles. It lies for the most part within the tropics and is well watered by four ample river systems, to wit: the three northern affluents of the West River which unite at the capital, and the smaller Han river which drains direct into the sea at the Treaty Port of Swatow, situated in the east of the province near the Fukien border. The products of its fertile plains comprise, outside the great staple rice—silk, sugar, indigo, tea, tobacco, oils, and many luscious sub-tropical fruits, while large quantities of fish and fresh vegetables are exported to Hongkong and the surrounding islands. At the census of 1812 the population was reckoned at 19,000,000; it is now estimated to have increased to 30,000,000 or more. 'The people present strongly marked features of national character, with very considerable variations in different portions of the province. Three principal varieties of language are spoken, and these represent the most ancient forms of the language.' This is the now generally accepted theory; the explanation of the fact that the mandarin dialect, so called, is spoken over two-thirds of the empire being that the speech of Northern and Central China has been so modified by the successive waves of Tartar invasions as to have been robbed of many of its ancient characteristics, notably the consonantal finals of its monosyllables, the pronunciation in the north being generally softer and the tones less harsh. The Cantonese are distinguished as the ablest and most enterprising of Chinese merchants, while from this province and from neighbouring Fukien proceed the most fearless and industrious of emigrants; 70,000 are recorded as leaving the one port of Swatow annually for the Straits Settlements and beyond.

The mountain structure of the Canton province harmonizes generally with that of the neighbouring provinces, the distinction being that the underlying granite, traceable throughout all China, here (as in Fukien) comes to the surface in larger and more exposed mass in the coast ranges. The general character of the geological formation of the whole country to the south of the Yellow River is remarkably persistent. As the American geologist, A. S. Bickmore, tells us in the record of his journey overland from Canton to Hankow in 1866: 'we find first and lowest the granite, on which rests the second formation composed of grits and slates; these are covered thirdly by old limestone, highly tilted; on these rest, fourthly, another series of limestone strata, often undisturbed from their original horizontal position and of the same age as the coal beds; these again being covered, fifthly, by the new red sandstone.' Mr. Bickmore obtained fossil Brachiopods from the old limestone on the banks of the West River, and comes to the conclusion that these old limestones probably belong to the Devonian period. Mr. T. W. Kingsmill, in his essay on the geology of Kwangtung, published in the Asiatic Society's *Journal* (North China Branch) for 1865, speaks of Kwangtung as presenting 'a connected sequence of formation ranging upwards from the early palaeozoic rocks of Hongkong and the adjacent continent and islands, to the Tertiary¹ sandstone of Canton and the delta of the Pearl River, and such as occurs at intervals from Hongkong up to near Hankow, intermixed with some traces of later formations.' Speaking of Hongkong, Mr. Kingsmill adds: 'A minute investigation of the water-courses worn into the sides of the hill, and a walk to Aberdeen and the other districts at the south of the island, will however show that other causes besides igneous have been at work, and that the igneous rocks themselves are by no means confined to granite,—slate and quartz as well as trappean rocks presenting themselves in many localities.' Proceeding to describe the stone of similar quality that extends along the coast-line far into the province of Fukien, he explains the peculiarly wild appearance given to the scenery by this decomposing granite (wherever met with in China), and to which

¹ This word is a subsequent correction by Mr. Kingsmill from the words 'New Red' in his original paper.

we have drawn attention in our account of the granite valley that intervenes between the Ichang and Niukan gorges on the Upper Yangtse, where mountains of piled-up gneiss boulders mark a desert in the midst of the surrounding fertility ; this being the only point at which, in the 1,500 miles from Hankow to Chengtu in Szechuan, igneous rocks emerge on the surface. 'The granites of Kwangtung, from the large amount of mica they contain, as well as from the excess of alkaline materials in the felspar, have readily decomposed and have yielded to the disintegrating action of the atmosphere, in these regions impregnated with water for a large portion of the year, to an enormous extent ; leaving behind a mass of soft, unctuous clay surrounding the grains of unaltered quartz. The granite is, however, very concretionary in its structure and irregular in character, and here and there are to be seen large masses of solid stone which have resisted decomposition, and lie like enormous boulders imbedded in the surrounding matrix ; in places exposed to the wear and tear of the tropical rains this matrix has been washed away, and the undecomposed masses, left far and wide over the surfaces of the hills, have more than once been referred to as the result of glacial action corresponding with the boulder drift of more northern latitudes. Along the coast this decomposed rock annually washed by the rains assumes a most barren aspect, giving a bleak and desolate aspect to the coast as approached from the sea, often hiding exceeding fertility within, whilst the deep channels worn by the mountain torrents, and the detached masses of rock of every form scattered about, give the whole an air of utter confusion and render walking amongst these ruins of Nature's handiwork no easy task.' The numerous headlands that jut out into the sea along the coast of the southern provinces of China are composed of granite, while the sea has intruded on the softer clayrocks and shales which form the recesses. 'Next in antiquity to the Hongkong series appear to come the Shaoking slates and grits, a fine opportunity for studying which is afforded at the pass called the Shaoking Gorge, a few miles below Shaoking-fu. These rocks consist of slates and grits of various degrees of fineness, from the fine-grained inkstone for which this locality is famous throughout China, to grits sufficiently coarse to form

grindstones. . . . Limestone rocks, always preserving the same lithological character, lying uniformly on the subjacent rocks, are to be met with in very different localities in China. . . . Mountains of this formation form the boundary between Hupeh and Szechuan . . . where the Yangtse forces its way from its upper to its lower course, as also along the boundary line between Kiangsi and Hupeh, abutting on the Yangtse between Kiukiang and Hankow, where again, for a distance of many miles, the river runs between high limestone hills. The rocks here are stratified, dipping at high angles, the beds varying from a few inches to five or six feet in thickness, the thicker strata being much fractured. . . . These limestone rocks so clearly too, in composition and appearance, resemble the carboniferous limestone of Europe and America, that on these grounds alone one might feel justified in looking upon them as their representatives; fossils too, though scarce, do not appear to be altogether absent, and the writer has seen some Orthocerites, a very common carboniferous form, in slabs of limestone from the North River of Canton. . . . Limestone is also found in the Mei-ling Mountains, the celebrated Mei-ling Pass having been cut through this rock, associated here with granite. This limestone also occurs in Shantung and in Shansi, and is characteristic of the boundary mountains along which runs the Great Wall, as in Kwangtung. Overlying immediately these limestone formations we arrive at the coal measures. Three coal-fields are known to occur in Kwangtung province.' Leaving the coal measures we arrive at a rock probably the representative of the Tertiary sandstone of Europe, from which it does not differ much in lithological character. Ascending the Canton river from the sea, we first meet with this formation above the Bogue forts at Tiger Island; here it dips at an angle of about 15° towards the NNW., lying unconformably on the slate and grit rocks of which the hills to the south of this are composed; the edges of the beds here and in other places in the plain are much denuded, while the slopes parallel with the bedding have suffered but little waste, giving these rocks, when viewed from a distance, the appearance of couchant wild beasts, whence probably the origin of the name. In the hills immediately to the westward of Canton basaltic outbursts may be

noticed in many places; one mass at the second bar pagoda is very conspicuous to the traveller proceeding up the river, the rock here being exposed in cubical masses rising like steps from the river's edge, the adjacent rocks at both sides being red sandstone. Mr. Kingsmill, writing thirty-eight years ago, adds: 'The subject for its own sake is an interesting one, but bearing as it does immediately on the industrial resources of this great country, so lately opened to European enterprise, it is scarcely presumptuous to look forward to the day when these studies shall be pursued with the view to the profitable investment of capital, and when the mineral resources of the country, worked in an enlightened manner, shall draw wealth to her treasuries, and peace and prosperity to her teeming millions.' Yet now, in 1903, although the land- and mine-owners of China are most anxious for European co-operation in developing their latent riches, the invincible repugnance of the official classes to associating with foreigners in such enterprises has not been overcome, and we still await the promulgation of practicable mining regulations which shall open the way for this much-desired free co-operation of foreign capital and experience in the work.

We have allowed ourselves this lengthy description of the Kwangtung province chiefly on account of its having been more thoroughly explored than any other in South and Central China—the north having been minutely described by Richthofen in his monumental work *China*—but also because, with the exception of the granite of the coast-line, it fairly serves as an epitome of the geology of the southern and central provinces from the Tibetan border (in which we include Yunnan) to the sea. We have seen Orthocerites from Hunan and from the limestone gorge above Ichang; in this latter district these fossils abound in inexhaustible quantity: the slates in which they are found embedded are cut into thin slabs, and as 'Pagoda stones' are much prized by both foreign and native collectors; by the latter they are mounted as screens and esteemed as an ornament for the dais at the head of every Chinese reception room. Before leaving the subject we must venture on one or two additional quotations from Mr. Bickmore's paper (see *Journal* of the North China Branch of the

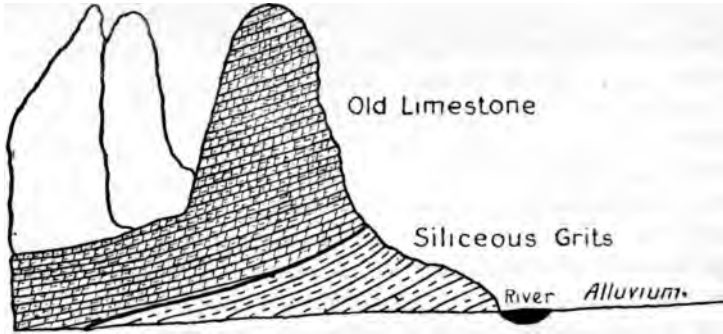
Royal Asiatic Society, 1867), as his description of Kwangtung may be almost equally applied to the provinces to the north and west, where the older limestone ranges obtrude from the more recent sandstones, and the features of the landscape and the mountains as we see them to-day have been carved out of tertiary strata but little tilted from their original horizontal deposition, by means of prolonged denudation. Mr. Bickmore writes: Our course (after leaving Canton) was first westward for about sixty miles through the great delta of the West River, whose low fertile fields spread out widely along the river banks and support a most dense population. Along the borders of these low lands rise serrated mountains, some peaks attaining an elevation of fifteen hundred to two thousand feet, their sharp ridges and projecting spurs coming out in strong relief on account of the scanty vegetation on their sides. . . . This nakedness appears to be a universal characteristic of mountain scenery in China, but it is not the fault of the soil or the climate, for wherever the pines are suffered to rise they show a vigorous growth. . . . The old trees seen in groves around the Buddhist temples, that only owe their preservation to the superstition of the destroyers, show what splendid timber thousands of hillsides in China might yield. But in regard to the low lands, it hardly seems possible that they could be made to produce more than is raised at present, two full crops being obtained nearly everywhere throughout the empire. The continued fertility of these lands is due, no doubt, chiefly to two causes: first, the Chinese are careful to save everything that can possibly serve for manure, in some places even to the hair they shave from their heads; and secondly, these low lands, or very nearly all, are subject to floods at least once a year, and a deposit of fine mud is thus spread over them, just as in the valley of the Nile. Following up the West River through a deep gorge in the first mountain range we come to the city of Shaoking, where the Viceroy of Kwangtung and Kwangsi resided when the Portuguese first appeared off the coast. At present it is mostly in ruins and its population probably does not exceed twenty thousand. About two miles behind it rise the famous marble rocks or 'Seven Stars,' like dark, sharp needles out of the low green plain. . . . I found them to range from one hundred to one

hundred and fifty feet above the plain, though they have been reported as nearly twice that height. The rock is a highly crystalline limestone, of a dark blue colour on the weathered surfaces, and of a rusty iron tinge where large fragments have been lately detached : the whole traversed in every direction by milk-white veins, and completely fissured by joints and seams. They form as striking objects in the surrounding plain as the ' Little Orphan ' does in the waters of the Yangtse (below Kiukiang), and also, like it, contain groups of little temples in the natural niches in their sides. . . . In the second day from Shaoking I came to ' Cock's Comb Rock,' a huge wall or dyke of limestone, with a crest so jagged that the name that the Chinese have given it accurately describes it. North-east from this, in a small plain, is a conical hill of the same rock, whose whole interior has been washed away, forming a much grander cave than the one previously visited in one of the ' Seven Stars.' . . . All the mountains in these regions are composed of fine, hard, siliceous grits, which in some places are compact and flinty, i.e. quartz rock or quartzite, in others as soft as sandstone ; and, besides these, of slates that are interstratified with these grits, and in some places are soft clay-slates, and in others as hard as shales. Half a mile below the little village of Kok-han on the left bank of the West River, just before I reached the boundary of Kwangsi, I found these grits and slates *resting immediately upon granite, in a nearly horizontal position.* The granite at this place was changed to gneiss to the depth of a few inches below these sedimentary deposits. Two miles below this village rises ' Ornamental Monumental Rock.' It belongs to the lower part of this series of grits and shales, but is composed of a coarse conglomerate, and perhaps represents the conglomerate observed near granite in other parts of the empire. Above Chaoping in Kwangsi the river flows through deep gorges, and we entered one called ' Forest Pass ' as the bright day was darkening into twilight. The rock was of hard siliceous grit and quartzite, and sharp peaks in the range rose up to a height of 1,600 or 1,700 feet. Like the famous Shaoking Pass, this is also a cleft in a mountain range ; but, while that is about 600 yards wide, this is but from 50 to 150 feet, and, as we sailed along with such overhanging precipices on either hand, the

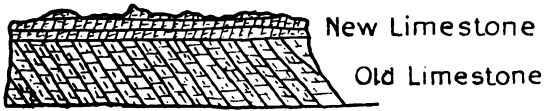
effect was far grander than anything I have seen elsewhere in China. . . . On the evening after leaving Pinglo, as we were following the river round a high bluff, we suddenly found ourselves on the edge of a valley ten or twelve miles broad and extending farther than we could see to the right and left. In every direction it was perfectly bristling with sharp peaks of limestone. The strata of the limestone were nearly horizontal, and once the whole valley was filled with this deposit, which in the course of ages has been worn into deep channels, that have kept widening until only sharp peaks are left of what was originally a broad continuous sheet of solid rock. From a single low position on the river bank I counted 193 separate peaks. The highest was, I judge, 1,200 feet above the plain, but even this probably does not represent the original depth of the formation.

We conclude with a copy of some of the sections given by Mr. Bickmore in his interesting essay. (See next page.)

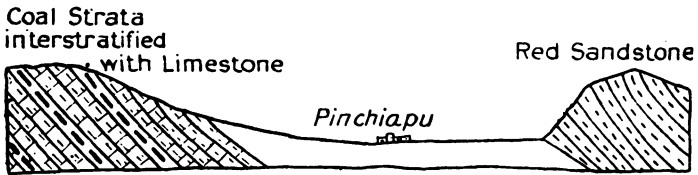
Kwangtung and the south was first annexed to China B.C. 216 by Shih Hwangti, the great emperor of China who abolished the feudal states, proscribed the obstructive literati, and built the Great Wall. The south, or 'YUEH,' the name by which the region was then called, was inhabited by uncivilized tribes akin to the stock from which the natives of Cochin-China and Cambodia were derived, and who, in all probability, were the progenitors of the present Miaotse. A celebrated character of the period was a Chinese general named Chao-to, who had assisted in the conquest, and who, on the final extinction of the Tsin dynasty shortly after the death of its great founder, and the establishment of the house of Han on its ruins, declared himself, about the year B.C. 206, Sovereign Prince of Southern Yueh, and rapidly extended his sway over the region lying to the west and south which had been designated the province of Kweilin (the present capital of Kwangsi). On the decease of Chao-to his grandson succeeded to the throne of Yueh, but was not long permitted to retain the position of virtual independence which had been bequeathed to him. As the house of Han grew firmer in its grasp of the sovereignty in Northern China, its demands upon the south grew gradually more imperious, and hostilities at length broke out between the empire and its feudatory, which resulted in the subjugation of the principality



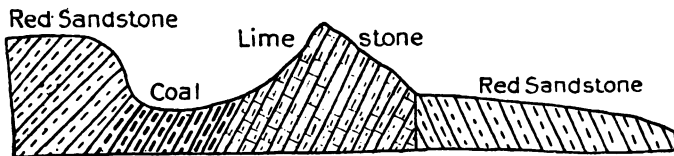
WEST RIVER : HINGPING



WEST RIVER : KIYANG



WEST RIVER : PINCHIA PU



WEST RIVER : LICHANG

FIG. 21.—Geological Sections on the West River.

of Nan Yueh and its incorporation among the provinces of China. The conquest was consolidated by the pouring in of thousands of military colonists from the cultivated regions beyond the mountain barrier of the Mei-ling into the newly acquired territory, a favourite method pursued by successive Chinese conquerors and one which has contributed largely to the homogeneity of the present Chinese. A central position for the seat of government was selected at the confluence of the East and West rivers, where already a native town existed, and, by a well-directed choice, the foundations were planted of what was to become the future city of Canton. 'Up to this epoch, as may be gathered from the indications afforded by the histories of the Han dynasty, all beyond the more central portions of what is now known as Kwangtung was virtually a *terra incognita* to the Chinese, and the existence of such an island as that of Hainan was probably known only by vague report from the occupants of the promontory . . . of Seu-wen, immediately facing the northern shores of Hainan ¹.' To subdue a rebellion which had broken out in B.C. 111, fresh armies were dispatched to Nan Yueh by Han Wuti, the 'Martial Emperor' (reigned 140 to 86 B.C.), and in the following year the island of Hainan was annexed to his dominions. The island is 150 miles long by about 100 broad and has about twice the area of Sicily; with the exception of a fringe of level land round the coast the whole island consists of jungle-covered mountains, culminating in the peak of Wu-chih (Five Fingers) near the centre, 6,000 feet in height. The mountains are inhabited by aborigines known as Li, and whose language would show them to be of the same family originally as the Miaotse of the mainland; the coast and the more accessible valleys are inhabited by Chinese who grow rice and agricultural products generally and trade with the aborigines, who, to this day, are only partially under Chinese control. These Chinese inhabitants are mainly from Fukien, and are in part, it is said, the descendants of 23,000 families imported under the Han dynasty subsequent to the annexation; 'a large number, but not excessive when viewed with reference to the magnificent scale upon which removals of population were ordered and effected in that age.' A Treaty

¹ Mayers, *R. A. S. Journal*, 1871-2.

Port was opened in Hainan in 1876, on the north coast opposite the Seu-wen peninsula, from which, as we have seen, it is separated by a strait twelve miles wide; on the east side of this peninsula, and distant fifty-two miles from Hoihow, is the entrance to Kwangchow bay, the fine harbour of which, together with the surrounding shores, was made French territory in 1898, the distance from Hongkong being, 200 miles to the westward. The chief export from Hoihow to-day is pigs for the Hongkong market, but the original attraction to Chinese settlement appears to have been the mussel beds from which a valuable description of pearl was drawn, Chu-yai or 'Pearl Shore' being still the name of the northern of the two prefectures into which the island is divided,—the southern prefecture being called Tan-erh, or 'Drooping Ear,' from the long ear lobes of the native chief of that region. Robert Swinhoe, formerly of H.M. Consular service, who has written a most interesting description of the island, mentions the fact of pine and coconut trees growing in the same field, with a magpie's nest in the latter; seeing that Hainan is situated between the 18th and 20th parallels, the fact of pines growing at a low elevation in this latitude testifies to the cool winter enjoyed by Hainan owing to its exposure to the full force of the north-east monsoon.

The province of Kwangtung boasts three Treaty Ports outside of the metropolis and the port in Hainan just described; these are—Pakhoi, to the north of Hainan, on the west side of the Seu-wen peninsula and about fifty miles distant from the Tongking frontier, opened to foreign trade by the Chefoo Convention of 1876, and notable only as an alternative and little-used route to Kwangsi and Yunnan, by a land road connecting it with the Pearl River; Samshui, situated at the junction of the North and West rivers, opened under the Burma Convention of 1897, the seat of an enormous junk trade and the converging point of two inland steamer lines; and, finally, Swatow, situated on the extreme east coast, one of the Five ports opened by the Treaty of Nanking, August 29, 1842, the centre of a large steamer traffic with Hongkong and the south. The free ports of Hongkong and Macao belong likewise to the province of Kwangtung, both being situated in the estuary of the Pearl River, the local name by which the West River is commonly

known. Macao, where leave to settle was first obtained by the Portuguese under the Ming dynasty in 1557, is situated on the west side of the estuary and at the southern extremity of the fertile delta enclosed between the two branches of the Pearl River that flow into the sea, dividing at Canton into a SW. and SE. branch respectively, and ninety miles to the south of that city. Macao is not to-day and never has been an important trading port, the bay upon which it stands being too shallow for any but light-draft steamers and junks; sea-going vessels trading with Canton have always anchored at Whampoa, situated on the SE. branch of the Pearl River, the one most directly accessible from the sea, and twelve miles below Canton. During the 150 years that the East India Company held the monopoly of the trade with Canton (1684-1834) and until after the war with England and the subsequent Treaty of Nanking in 1842, the Chinese forbade Europeans to bring women to their residences at the 'Factories' situated in the suburbs of Canton city, and Macao was consequently used as a place of residence for their families. This port enjoyed a short fictitious prosperity in the 'seventies,' by its protection of the infamous trade in coolies shipped thence to the Peruvian guano mines; when, in 1874, this trade was happily abolished, Macao, owing to its salubrious site and exposure to the SW. monsoon, became chiefly noted as a sanatorium and watering-place of residents in Hong-kong; the Portuguese population number about 7,000, and owing to intermarriage with Chinese are almost a separate race, known throughout China as Macao Portuguese. Since 1849 the settlement has been under the direct rule of Portugal, the 90,000 Chinese now settled there being equally under Portuguese jurisdiction, and the long-disputed Portuguese sovereignty over the peninsula has been finally admitted by treaty made with China in 1887.

As far as we know, no investigation, such as has been made on the Yangtse river, has ever been undertaken in regard to the weight of solid matter annually deposited in the sea by the Pearl River of Canton; but some estimate may be formed from the facts ascertained in regard to the silting up of the harbour of Macao. Macao stands at the extremity of a small peninsula jutting out into the sea from the southern shore of the

alluvial island of Heong-shan, with which it is connected by a narrow sandy isthmus (or Macao Island), the harbour being formed by the rocky islands of Lappa and Taipa, situated to the south and west of the peninsula. On one side the Si-kiang, or west branch of the Pearl River, enters the sea, and on the other is the wide estuary of the main branch of the river; the now British islands of Lantao and Hongkong lying on the east side of the same estuary. The British Admiralty chart of 1865 gives a depth in the roadstead off Macao of nine to ten feet at low water (springs), which the survey of 1881 found reduced to five and a half feet. C. A. Montalto de Jesus, in his interesting work *Historic Macao* (Hongkong, 1902), tells us that, from a subsequent survey held in 1883, it was estimated that in twenty-five years the harbours of Macao had been laden with no less than sixty-nine million metric tons of alluvial deposit; and that, at the inner shores, the condition was such as to warrant the dismal conclusion that within two decades the legendary port that had sheltered the junk of Tien How (Queen of Heaven) would be dry at neap-tides. The harbour of Macao is now only practicable for small craft and light-draft river steamers, although a fair anchorage is still available for sea-going vessels under the shores of Taipa, two miles distant. But during the past fifty years the steady rise of Hongkong has led to the gradual effacement of Macao, which now rests in the glories of its historic past and of its salubrious climate, which contrasts so favourably with the muggy atmosphere of the mountain-locked harbour of Hongkong. Hence it is hardly probable now that reclamation works, proposed by Portuguese engineers and estimated to cost £500,000, will ever be taken in hand by the Portuguese Government.

On the opposite shore of the estuary and at the southern extremity of the Kowloon peninsula that forms its eastern margin, and forty miles distant from Macao, is situated the island of Hongkong, ceded by the Chinese Government in 1841 and founded as a British colony under Royal Charter dated April 5, 1843. In 1860 the point of the opposite peninsula of Kowloon was leased for a naval and military dépôt, and in 1898 the whole of the peninsula, comprising an area of 200 square miles between Mirs Bay on the east and Deep Bay on the west.

was added on a lease of ninety-nine years obtained from the Chinese Government. The original island colony is little more than a barren mountain peak, 1,825 feet in height, dominating a pile of decomposing rugged granite hills, measuring in all nine miles east and west by eight miles north and south, with no level land suitable for occupation. Yet, notwithstanding this unpromising outlook, its fine, sheltered and roomy harbour and the freedom of movement consequent on its having been early declared an absolutely free port to all comers, have made of Hongkong the shipping metropolis of the Far East, a credit to British rule and an example to surrounding countries; its only drawback is the fact that the necessity of building the

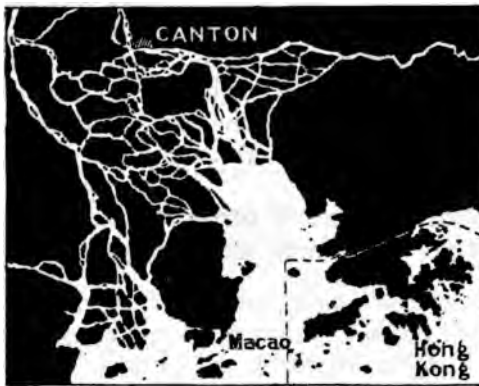


FIG. 22.—The Canton Delta.

town of Victoria opposite the harbour on the north side cuts the town off from the south-west breeze in summer, and so makes the air unpleasantly close for a city situated just within the line of the tropic; on the other hand, during the north-east monsoon, the winter climate is delightful¹. Victoria, as the capital is

¹ The warm vapour brought to the coast of China by the south-west monsoon is precipitated in steadily diminishing quantity as it is carried north. Thus the average annual rainfall is: in Canton 70 inches, in Shanghai 30 inches, and in Chihli 16 inches. Three-fourths of the rain falls in Canton and Shanghai in May, June, and July; and in Chihli in July and August. The winters are bright and free from cloud, and thus we find in North China (Shanghai to Shanhaikwan) frequently with the north-east monsoon, hot sunshine accompanied by freezing gales,—70° and 80° in the sun, and 10° and 20° Fahr. in the shade.

called, now contains a population of ten thousand Europeans of all nations and about a quarter of a million Chinese, and it is one of the most beautiful cities in the world, the dwellings of the residents rising up, from a five mile sea frontage, tier upon tier, in every available nook a thousand feet and more above the water. Afforestation has been most successfully pursued from the beginning of its settlement, avenues of banyans and forests of pine-trees showing what might be made of the barren islands off the coast and the innumerable clean-shaved mountain ranges of the mainland, did the Chinese care to follow our example or to improve their country—a conception which is unfortunately beyond the grasp of Chinese officialdom as it is undoubtedly beyond that of the ‘stupid people.’ Not only has the island been thus beautified, but its old evil reputation for malaria has disappeared, and, but for the hesitation of the Government in enforcing complete sanitary regulations upon the reluctant Chinese population, it would be one of the healthiest commercial cities in the world, as it undoubtedly is one of the most prosperous and most beautiful.

We here bring our cursory survey of ‘China proper’ to an end and proceed to examine her numerous dependencies and offshoots.

CHAPTER X

THE DEPENDENCIES : PART I. MANCHURIA

THE eighteen populous provinces which compose 'China proper' are enveloped on all sides, excepting the one open to the Pacific, by thinly peopled regions of more than double the area of the kernel, all acknowledging Chinese sway, having been acquired, some by conquest, some by inheritance, some by hardly unwilling submission to the superior civilization of their illustrious neighbour ; all form together an area exceeding that of Europe, and not the least valuable of these outlying possessions is Manchuria.

Manchuria is so named from the Tartar tribe originally dwelling in the country, the Manchu, which conquered China in 1644 and whose descendants form the ruling dynasty to-day. The country, including the maritime province of Primorsk, has an area equal to that of France and Germany combined, possesses an exceptionally rich soil, and potential resources which only need development to render it equally productive : this vast region, extending from the 39th to the 52nd parallel of north latitude, lies farther to the south than do those countries, but, owing to the drop in the isotherms of Eastern Asia, the winter climate is colder by some thirty degrees than in the corresponding latitude in Europe, and ten to twenty degrees colder than in the same latitude in New England. Of the cold Arctic currents that alike wash the eastern shores of both continents, that which descends upon the Asiatic coast is greater in volume and is traceable farther south than the analogous current that cools the eastern side of the American continent, and gives to New York, in latitude 41° , a winter climate akin to that of Copenhagen in latitude 56° . By the interposition of the high mountainous island of Formosa, the warm equatorial current of the Pacific is deflected from the coast of China before the stream leaves the limits of the tropics, whereas, on the American coast, Cape Hatteras, whence occurs a similar deflection of the Atlantic Gulf Stream, is in latitude 35° . This Pacific current, named by the Japanese the Kuro-siwo or Black Stream, from the deep blue

of its waters compared with the lighter tint of the downward Arctic current, follows along the chain of the Liuchiu Islands to the southern coast of Japan, making way, as it turns eastward, for the counter-current of cold water which pours down through the Corean Straits, and with which the wide basin of the Yellow Sea, from latitude 25° off the coast of Fukien to latitude 41° in the gulf of Liaotung, is perennially filled. This cold Arctic current, descending from the Sea of Okhotsk, washes the eastern shore of Manchuria (in its maritime province of Primorsk) where

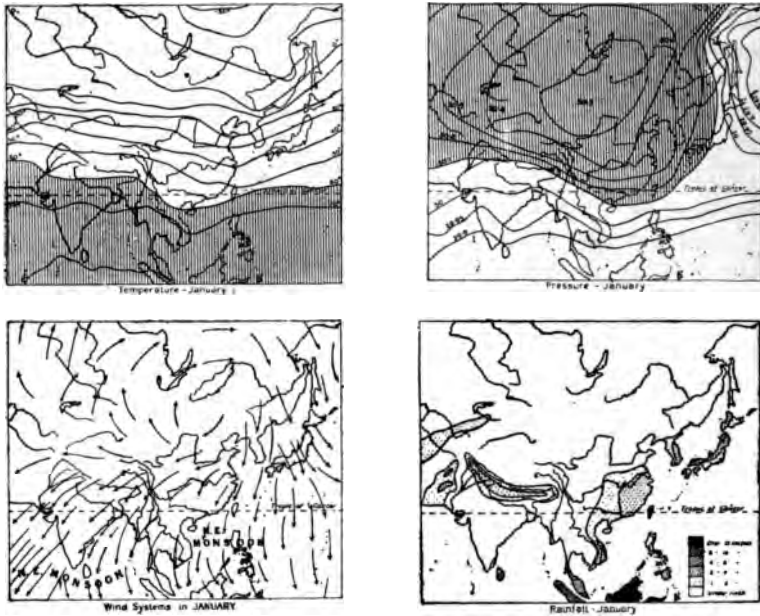


FIG. 23.—Meteorology of Eastern Asia.

this abuts upon the Sea of Japan, and modifies the climate much as the Greenland current on the corresponding coast of the American continent modifies the climate of New Brunswick and Nova Scotia. The monsoon winds are, however, a peculiar feature in the meteorology of South-eastern Asia, produced by the indraft upon the high central plateau in summer and by the corresponding outdraft in winter; thus the north-east and south-west monsoons, so called, blow alternately to and from the Equator up to latitude 50° N., and so go to accentuate

the difference between the winter and summer climate of this region, noted for its extremes of temperature. Manchuria and North China endure in winter a succession of north-west gales raging down from the high table-land of Mongolia, producing a semi-arctic climate, tempered, however, by almost continuous sunshine; yet from November to March the rivers and sea-coast are frozen down to latitude 38° , while in exceptionally cold winters skating may be indulged in at the sea-level as far south as latitude 29° ; on the other hand the

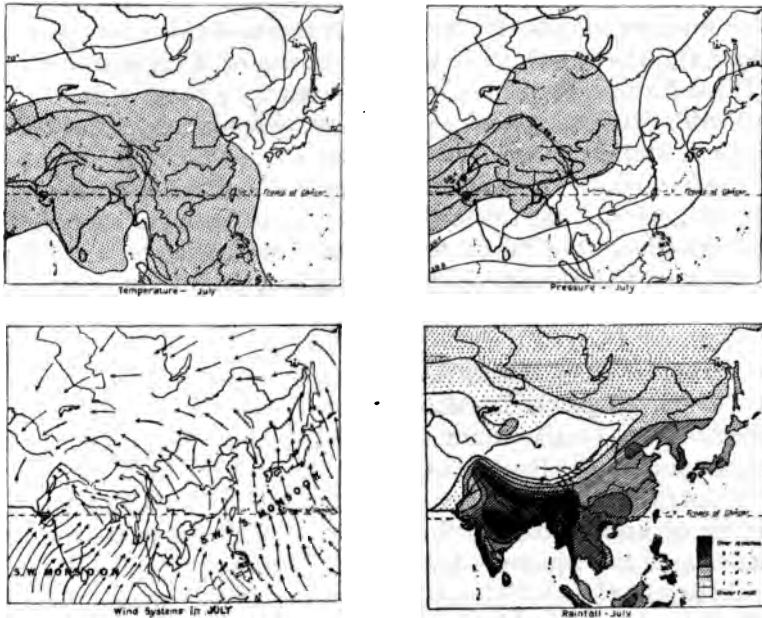


FIG. 24.—Meteorology of Eastern Asia.

summer heat is great, and at that time the warm monsoon rains prevail which, coupled with the great heat of the sun in these latitudes, enable magnificent crops to be secured from the fertile soil. These conditions prevail all along the coast of China; Canton, on the edge of the tropic, enjoys a cool winter season and snow is occasionally seen on the surrounding hills. Even Singapore, situated almost on the Equator itself, is, during our northern winter months, cooled by winds originating in Mongolia.

If we include in the outline of Manchuria the coast province of Primorsk, ceded to Russia in 1860, but which physically belongs to it, we have a country with an area of over 400,000 square miles; with a soil yet more productive than that of China proper, consisting, as it does, largely of the black loam that gives its marvellous fertility to North-west Canada; and with mineral resources equal, if not superior, to those of any similar area in the world. Deducting, however, the maritime province, now Russian, and which, as it now stands marked in our maps, falls geographically into Siberia, we have still left as a dependency of China, an area of 280,000 square miles, divided into three districts, which give their Chinese name of Tung-san-seng—'Three Eastern Provinces'—to the country; these are:

South: Fengtien, 50,000 square miles. Population, 12,000,000. Capital, Mukden; port, Newchwang.

Centre: Kirin, 90,000 square miles. Population, 7,000,000. Capital, Kirin; chief commercial mart, Kuanchangtse, eighty miles north-west of the capital. Centre of Russian occupation: Harbin, on the Sungari river, point of junction of Vladivostock branch of the Manchurian Railway with the main line to Port Arthur.

North: Heilungkiang, 140,000 square miles. Population, 2,000,000. Capital, Tsitsihar, or, in Chinese, Pukwei; chief mart, Aigun, on the Amur, forty miles below Blagoveschensk (destroyed by the Russians in 1900).

In all: Chinese Manchuria, 280,000 square miles, with a population of 21,000,000, which gives an average of seventy-five persons to the square mile, dense in the agricultural plain of Liaotung in the south, and thinning out in the forest-covered hilly regions of the north and east. These three provinces comprise the Manchuria of to-day; the name 'Manchu' is now obsolete, having been superseded by that of 'The Three Eastern Provinces.' These extend from Port Arthur, the extreme southern point of Fengtien (the Liaotung peninsula), to Albazin, on the Amur, in the north, a distance of 900 miles; and east and west, from Lake Hinka on the Primorsk border to Huldu on the Mongolian border, a distance of 600 miles. Throughout all this vast region the land is only partially cultivated, the mountains being mostly covered with

virgin forest awaiting clearance and cultivation ; the pastoral steppe, now covered with troops of horses and flocks of sheep, besides innumerable antelope, begins with the Mongolian plateau on the western frontier. Manchuria, as a whole, may be said to consist of one alluvial *Tiefebene* in the south—the valley of the Liao, which occupies the main portion of the province of Fengtien, or, as it is commonly called, Liaotung (east of the Liao), the rich agricultural plain being continued northwards in the valley of the Sungari, 100 miles beyond Harbin ; of wide marshlands with undulating forest country in the north and centre, drained by the Sungari and its affluents in Kirin and Heilungkiang ; and of the high mountain ranges that wall in the dependency on its eastern and western frontiers. In the south Manchuria lies open to the Yellow Sea, and in the north to the valley of the Amur. The two great mountain ranges that enclose the Manchurian basin on the east and west, and the spurs from whose flanks yield the undulating surface that pervades the bulk of the Manchurian basin, are: on the east, the Chang-pai-shan, the ‘Long White Range’ and the steep mountains, 3,000 to 8,000 feet in height, that border the Pacific Ocean, from Corea to Kamschatka ; on the west, the great Khingan range which walls in the high Mongolian plateau on its eastern border, and at the end of which the land falls gradually to the lower level of the Manchurian basin. To the north of the Sungari valley and separating it from that of the Amur, is a range, running east and west, known as the lesser Khingan and north again, beyond Blagoveschensk and Aigun, the Alin range in which the Nonni—flowing south into the Sungari near Petuna—takes its rise. Both these bleak ranges may be regarded as offshoots of the greater Khingan on the west. Unlike the mountain land of which the bulk of the surface of the ‘eighteen provinces’ of China proper consists, chiefly stratified deposits of lime- and sand-stones, worn by denudation into often precipitous outlines, the Manchurian ranges are composed of igneous rocks whose decomposition has created a softer, rolling country, needing less strenuous efforts in terracing and irrigation than we find devoted to the reclamation of the soil throughout the ‘eighteen provinces,’ excepting in the wide alluvial deltas of the great rivers, as described in the preceding chapters. As

in China proper, the axes of these ranges incline generally from SSW. to NNE., but the formation is less regular and the water-partings are less clearly defined, giving rise to rivers flowing to every point of the compass. Manchuria is remarkably well watered by numerous large navigable rivers, which, owing to the more gentle lie of the land, are not obstructed by the rapids and shoals that infest the rivers of China proper and render their navigation possible only under conditions that none but Chinese boatmen would attempt to master, and in regions where alternative land roads are generally wanting. The chief rivers of Manchuria are: first, in the north, the great river Amur, which takes its rise in two main forks flowing down from the Mongolian plateau, the Shilka and the Argun, whose point of junction a few miles above the Russian town of Pokrovskaia marks the north-western corner of Manchuria together with the eastern boundary of Transbaikalia. The Amur, from the point of union of its two western forks, forms the northern boundary between Manchuria and the Russian 'government' of Amurskaia for a distance of 1,089 English miles, from Pokrovskaia in the west to Habarovsk at the junction with the Ussuri in the east. The Amur from its sources near Urga in Mongolia to its mouth at Nicolaievsk, in the gulf of Tartary, opposite Saghalien, traverses thirty-five meridians of longitude, its total length being about 2,500 miles, little short of the great rivers of China, the Yellow River and the Yangtse. During six months of the year, the Amur is navigable for 1,500 miles of its course by steamers drawing four feet of water, as far as Stretensk in Transbaikalia, whence a branch railway, via Nerchensk, connects with the 'Trans-Siberian' at Chita. Similarly the Sungari is navigable for a distance of 600 miles from its mouth in the Amur above Habarovsk past Harbin to Petuna and Kirin—this latter an important river port and the great inland ship-building centre of Manchuria. The river Argun forms the western boundary of the province of Heilungkiang, dividing it from Russian Transbaikalia from the point whence the river issues out of Lake Dalai-nor in Mongolia to the point where, united with the Shilka, it goes to form the main Amur river, from Pokrovskaia downwards. The Argun flows northwards along the western slopes of the great Khinggan range; the eastern slopes of this range are drained

by the Nonni, a river which rises in the north-east of the Heilungkiang province, in the neighbourhood of the Amur and to the north-west of Tsitsihar, the capital, flowing past that city, whence it continues south to within twenty miles north of the town of Petuna in the province of Kirin, where it falls into the Sungari coming from the Long White Mountain in the east; at this point the Sungari is deflected back to the east and to the north-east, until the united streams fall into the Amur at a point 150 miles above Habarovsk. The region where the Nonni and the Sungari unite is a vast swamp, and the inland estuary of the two rivers, as Mr. James tells us in his *Long White Mountain* (Longmans, 1888), is here ten miles across. The Nonni is navigable by large junks from the Sungari in summer as far up as Tsitsihar. It will be seen by the map that the Mongolian plateau projects an eastern extension into Manchuria separating Heilungkiang in the north from trans-mural Chihli and the Manchurian province of Fengtien, or Liaotung, in the south; this extension, like Mongolia generally, comprises a rolling pastoral country, while the inhabitants are no longer Manchu-Chinese but Mongols pure and simple, owning only indirect allegiance to the emperor at Peking.

The second largest river of Manchuria is the Sungari, which rises in the Long White Mountain in latitude 42° , traverses the province of Kirin, until, 400 miles from its source in the south, it reaches the capital of the same name which it embraces in a fine sweep of deep water four hundred yards in width, flowing thence in a north-westerly course athwart the province until joined by the Nonni near Petuna, where it is deflected north-east until it falls into the Amur in latitude 48° after a course of over 1,000 miles, receiving at Sansing another large affluent, the Hurka, or 'Peony River,' which rises on the eastern slopes of the Long White Mountain, not far from the Pacific coast. Of the other rivers that take their rise in the mountain nexus of the 'Long White' range, in the east, the principal are the Yalu and the Tumen, the two rivers that together mark the boundary between Manchuria and Corea, the former flowing west into the Yellow Sea, and the latter east into the Pacific; the Yalu is a large river and utilized chiefly for the conveyance to the coast of the fine timber which is cut along its upper reaches and on the

slopes of the 'White Mountain.' This river is also famous for the naval engagement at its mouth in 1894, so disastrous to China, whose fleet was here destroyed by the Japanese. The last river of importance is the Ussuri, which forms the boundary line between Manchuria and the eastern province of Primorsk ; this river takes its rise in the coast range near Ussuri Bay, north of Vladivostock, and flows thence NNE. until it falls into the Amur at Habarovsk, after a course of 350 miles. We see then that the prevailing direction of the courses of the Manchurian rivers is northwards into the valley of the Amur, following the trend of the mountain ranges which sink in elevation as they approach the north ; a marked exception, however, to this general rule is the Liao, which, rising on the Mongolian steppe, flows southwards into the Liaotung Gulf—the northern prolongation of the Yellow Sea,—after draining the rich metropolitan province of Fengtien and providing access to sea-going steamers at the Treaty Port of Newchwang.

The western half of this province is formed from the alluvial valley and delta of the Liao, its right bank being termed Liao-si (west of the Liao) while the left bank is termed Liaotung (east of the Liao), and gives its name to the hilly country to the east, up to the Korean boundary, and to the peninsula of the 'Regent's Sword' with Port Arthur at its point. On either side of the rich Liao valley,—protecting it on one side, the north-west, from the incursions of the Mongols, and on the other side, the north-east, from the Koreans and the outlaws of the 'White Mountain,'—stood in ancient times the 'Palisades,' which are still marked on our maps, but which, unlike the Great Wall which they adjoin, are traceable to-day alone in a few ruined gateways across the main roads, still upheld for purposes of octroi. Fengtien has been a valued possession of the Chinese for nearly a thousand years, and, unlike the northern provinces of Manchuria, is thoroughly settled and cultivated by them ; during the terms of the many Tartar dynasties that have ruled northern China, Fengtien (or Liaotung) was always considered as an integral part of the empire and the source of many of its richest productions. It is known to Europeans generally through the Treaty Port of Newchwang, by which passes a vast trade, in steamers and in junks, estimated at some

ten millions sterling annually in value, the exports being chiefly beans and their products as well as Tussah silk, and the imports mainly cotton piece-goods from England and America. So rapidly is the land making out seawards, here as in the deltas of the other rivers that fall into the Liaotung and Pechili gulfs,—especially the Peiho on the west and the Yalu on the east,—that

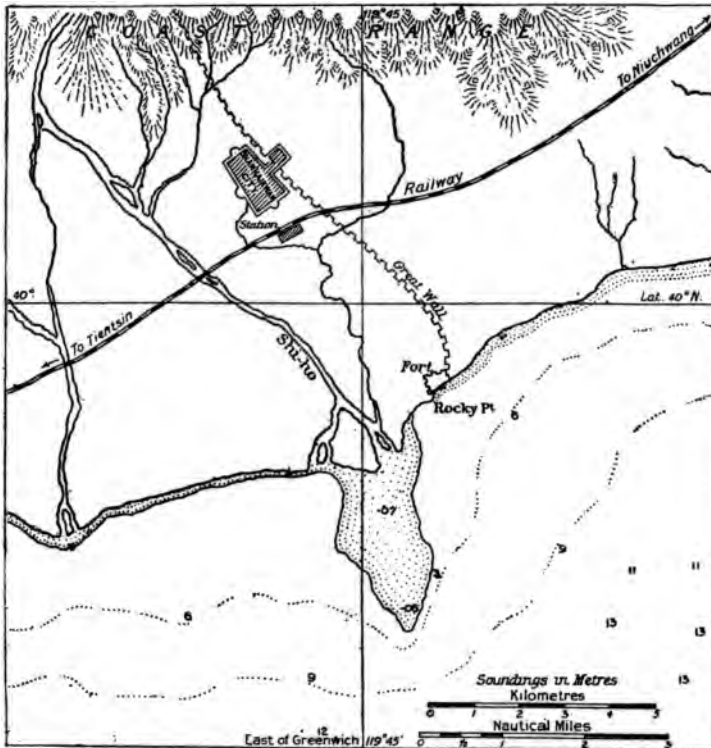


FIG. 25.—Encroachment of the Land on the Chihli Gulf.

the original port of Newchwang has had to be shifted thirty miles lower down-stream to Yingtse, the spot on which now stands the 'foreign' customs station and the 'Concession' town, and the site of which eighty years ago was at the bottom of the sea (James); and yet Yingtse itself now stands twenty miles from the mouth. This valley of the Liao, together with the

valley bottoms of the great inland rivers, comprises the best level land in Manchuria, and it is on this that the great crops of pulse (and recently opium) are mainly raised. But agriculture is daily pressing northwards, embracing not only the rich bottom lands of the Nonni and the Sungari, but is fast invading the undulating land as the forests get cleared, and large crops of cereals of every description are grown—in Chinese garden-like cultivation—as the rich black loam is disclosed by the clearances¹. The crops comprise millet, wheat, hemp, maize, barley, indigo, tobacco, and the sorghum or Kao-liang, the grain of which is the chief source of the large export of alcohol, while the stalks make an excellent fence or thatch, and also form the fuel of the people in regions where wood is scarce. The small millet—or Ku-tse, which grows to a height of only three feet—boiled as porridge, constitutes the staple food of the inhabitants, while the straw, mixed with moistened Kao-liang, is the fodder to which the hard-worked mules and horses of Manchuria owe their generally excellent condition. The forests abound with every description of valuable timber—elm, oak, pine, walnut, birch, spruce, and plane—besides the stately Salisburia, common in temple grounds throughout North China and Szechuan. Coal and minerals of all kinds are abundant; gold is washed in nearly all the numerous southern affluents of the Amur, the product of the sands of the Sungari near Sansing being, according to Hosie (*Manchuria*, Methuen, 1901), three pounds avoirdupois per day. Sables and ginseng by no means complete the roll of Manchuria's almost unlimited resources.

Manchuria is probably best known in Europe as the home of the present ruling dynasty in China. The ancestral home of the great founder and warrior, Nurhachu, was on the western slope of the Long White Mountain, where he ruled one of the

¹ As Putnam Weale, who well describes the general aspect of Manchuria in his well-known *Manchu and Muscovite* (Macmillan, 1904)—alluding to the undulating country which surrounds the head-waters of the Liao—writes: 'From Mukden's walls a splendid view is to be had of the surrounding country, and certain it is that the old capital of the country lies in a pleasant land. Rolling plains covered with magnificent tilled fields surround the city, with hills in the middle distance, and mountains vaguely seen far away. . . . What a land flowing with milk and honey is Manchuria, even if there is a winter of terrible cold and blizzards.'

petty independent states into which Manchuria was then split up,—a state capable of setting in the field two to three hundred armed men. With these as a nucleus, Nurhachu proceeded to conquer the surrounding tribes; he established his capital at Liaoyang on the banks of the Liao river, and in A.D. 1603 removed to the site of Mukden (in Chinese, Shen-yang)—at the same time that Ieyasu was consolidating the rule of the Shogunate in Japan and removing his capital to the site of the present Tokio. By 1625 the whole country, up to the Amur in the north and to the Pacific in the east, had been brought under his sway. He thus made his rear secure and felt himself strong enough to attack the Chinese, whom he utterly routed in the great battle of Kaiyuen (North Liaotung); a year later Nurhachu died in the sixty-eighth year of his age; his son, known in Chinese history as Tai-tsung, now set about attacking the effete Ming dynasty in Peking; he carried on the war for fourteen years, but it was reserved for his son, the grandson of Nurhachu, known in history as Shun-chih, to effect the final conquest of China; he was aided by disloyal Chinese, whom he compelled to shave their heads and adopt the Manchu pigtail, in order that they might be safely distinguished from the Chinese who fought against them; and thus, in 1644, the new Manchu dynasty was established in Peking, but another generation passed before the whole 'eighteen provinces' were finally reduced to Manchu sway.

The present 'Tatsing' is the third dynasty that Manchuria has given to China. In the tenth century of our era the Kitan Tartars (from whom is derived the mediaeval name for China, Cathay) founded the Liao dynasty, making Yenching—the site of the present Peking—their capital, finally dividing the empire with the Sung, who were driven to make Hangchow their capital and to content themselves with the country south of the Yangtse. Secondly, the Nu-chen Tartars, a tribe living on the Sungari, ousted the Liao and established the Kin or Golden dynasty and ruled North China from Peking, from 1115 to 1234, when they were in turn ousted by the Mongols, Kublai Khan eventually seating himself on the throne of China in 1280. One often hears China spoken of as being ruled by an alien dynasty, but, as a matter of fact, China has been so often overrun by the various

racés of the Tartar family living outside the Great Wall, and these have so readily assimilated the superior civilization of the Chinese, that there is to-day no distinguishing feature perceptible between the two races ; this fact has been constantly remarked upon by all writers on the subject from Thomas Taylor Meadows downward. An analogous case is seen in the gradual absorption of their conquerors by the Saxon English in the three hundred years succeeding the Norman conquest of England in 1066. The Tartars have given much of their superior manliness to the Chinese, and lost it in so doing ; the Chinese have imparted their civilization, both material and moral, to the Tartars and rendered these nearly as effeminate as themselves in turn. Even the Manchu language is now entirely obsolete ; edicts have, from 'old custom,' to be issued in Manchu as well as in Chinese, but it is difficult nowadays to find writers to translate them ; the present reigning Empress Dowager is said not to understand a word of her native language.

Of the 21,000,000 of inhabitants now attributed to Manchuria, at least nine-tenths are pure Chinese or the descendants of Chinese immigrants : of the remaining tenth not half are pure Manchu, and even these are only distinguishable by a doubtful pedigree record and have forgotten their native language, having insensibly adopted that of their peaceful invaders. Chinese writing, and Chinese only, is employed everywhere ; even the Government proclamations, which every self-respecting mandarin is persistently engaged in issuing, are couched in the one language understood of the people. The Manchu language, which appears to have had no writing prior to the fifteenth century, when a modification of the Mongol script was adopted to represent its sounds, never possessed any literature of its own. The tribes speaking it were mostly wild nomads and its disappearance is no loss to the world. It was only when the semi-barbarous Manchus found themselves seated on the Dragon Throne that their dignity required a recognition of their language in China, and for a time all proclamations and coinage inscriptions were bi-lingual : but to-day no one speaks Manchu, and nothing but 'old custom' leads to its perfunctory production at special functions of the Peking Court.

The great 'Chinese Eastern' Railway—as the new line, financed by the Russo-Chinese Bank, which crosses Manchuria from north to south, from the Siberian frontier to Port Arthur, and west to east to Vladivostock via Harbin, is officially designated—follows naturally the 'lay' of the wide Manchurian plain—the vast central valley which extends from Newchang in latitude 41° to 100 miles north of Harbin in latitude 47° —and so the sites of its chief cities. By following up the lines of railway we are thus enabled to gain a clear conception of the physical geography of Manchuria and of its chief natural resources. The 'Chinese Eastern' from Port Arthur in latitude 38° to Dalai-nor in latitude 50° —north of which point the new line is linked up with the Siberian Railway running in acknowledged Russian territory—traverses Chinese territory for a distance of 1,100 miles, while the eastern branch (formerly the original line) that connects Harbin with Vladivostock covers a distance of 500 miles in a line running ENE. by WSW., of which the last 100 miles traverse the Russian maritime province of Primorsk to the Japan Sea, the fine bay of Vladivostock being situated at its southern extremity. Starting from Port Arthur, with a short branch line to the mushroom town of Dalny in the bay of Talienwan, the railway traverses the Kwantung peninsula, quitting the 'leased territory' at the frontier town of Pulantien, whence it proceeds north 100 miles to Tashihchiao, at which point another short branch of eighteen miles connects the main line with the Treaty Port of Niuchwang (cattle dépôt) situated in the embouchure of the Liao river to the west. This Tashihchiao junction is a place of great strategic importance, and here we find spacious machine and repairing shops for the railway as well as extensive barracks for the Russian army of occupation, with a large Russian civilian population dependent upon the railway and the military, as at Port Arthur and Dalny. All this section of the line traverses a hilly barren-looking granitic country, a replica of that on the opposite coast of Shantung, 60 miles distant across the Pechili Gulf. The soil is dry and sandy, the mountains bare of vegetation, and alone in the valley-bottoms we find agriculture carried out in small plots by the hardy inhabitants,—immigrants from Shantung and

their descendants. After leaving Niuchwang the line traverses the rich valley of the Liao to Liaoyang and Mukden, and runs along the foot of the mountain spurs that come down from the high ranges of Korea and Chang-pai-shan, and form the boundary of the Liao plain on the east. From Niuchwang to Mukden is another 100 miles¹. Following up the valley of the Liao and of its affluent the Hei-shui, the line passes near Yentai, from which the railway derives its chief coal supply; Tiehling, a prosperous trading-mart and chief centre of the Manchurian iron industry; and then, 160 miles north of Mukden, passes Kwangchengtse, the largest city in Manchuria, being credited with over 250,000 inhabitants. The line here grazes the Mongolian frontier; the district of Kwanchengtse, although included in the Kirin 'government,' being in reality a Chinese colony in Mongolian territory: it is to this fact that it owes its importance: analogous to Kwei-hua-cheng, on the Shansi border 700 miles to the west, it is situated on the edge of the 'grass lands' and is a place of barter for Mongolian produce. Farther north, a bad cart-road leaves the railway for Kirin, situated two days' journey. Kirin is the capital city of the central of the three Manchurian provinces, has a population of 200,000, and is the head of steam navigation on the Sungari. From Kwangchengtse 140 miles' ride takes the traveller across the Sungari to Harbin, the great railway junction and present centre of the Russian occupation. Harbin stands almost equidistant, 500 miles in each direction, from Niuchwang in the south, Blagoveschensk in the north, Vladivostock in the east, and the Jedyn Pass (3,500 feet) over the Khingan mountains, past Tsitsihar, to Khailar in the west,—and is thus equally the natural centre of the country; it stands, too, in the midst of a magnificent wheat country, and its steam flour-mills turn out nearly 1,000,000 pounds of flour per day. The Sungari is here half a mile broad, and numerous steamers convey its flour and lumber to the Amur ports and bring back

¹ Mukden may be classed as a small Peking: the Yamens and offices of the Imperial City are here duplicated; it is the seat of government of the 'three eastern provinces,' the residence of the Chinese Governor-General, and the rendezvous of the 'expectant' officials that pervade all the Chinese provincial capitals. The region is sacred in Chinese eyes as containing the tombs of the ancestors of the reigning dynasty.

ocean-borne imports in return. It is a wide straggling town, the Russian portion newly built in the last four years, and in 1903 held a population of 30,000 Russians and some 250,000 Chinese, mainly attracted hither by the vast government expenditure in the place. Harbin and Port Arthur are the two towns in Manchuria, and the only two, where a Russian civil population is really in existence.

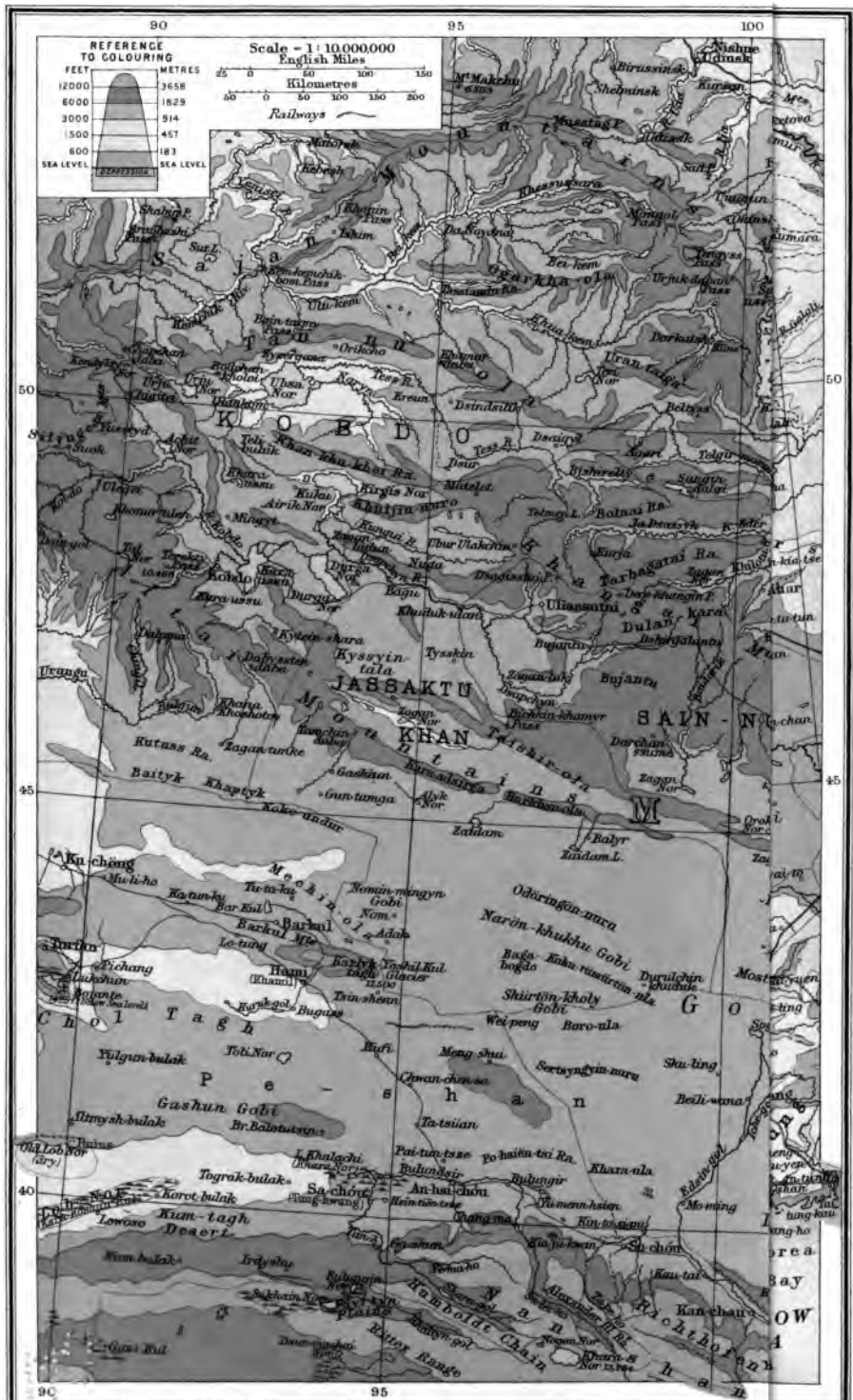
Two hundred miles north-west of Harbin stands Tsitsihar, the capital of Heilungkiang (Black Dragon River—the Chinese name for the Amur), the third, the largest and northernmost of the three Manchurian provinces, on the banks of the Nonni, with a Chinese population of 100,000. The railway passes it ten miles to the south and the main traffic continues to go by water, the Nonni being navigable in summer by steam-launches up to the gates of the city. After leaving the valley of the Nonni, which flows through an undulating plain rich in boundless fields of wheat and Kao-liang, the land rises as Mongolia is approached, the railway runs between high mountains until the Khingan range is passed at the station of that name and Khailar, 250 miles distant from Tsitsihar, shortly before the line enters Transbaikalia to the north of Lake Kulun or Dalainor. This last section of the line traverses a purely pastoral country inhabited by Mongol nomads.

Returning to Harbin, and leaving the south-western extension to Niuchwang and Dalny on our right, we find the original line of railway continuing on in a south-easterly direction to the borders of the Russian province of Primorsk, after entering which the line turns due south to its terminus at Vladivostock. The train runs nearly for another hundred miles through the Harbin wheat-field, after which it enters the hilly table-land that separates the great Manchurian plain from the Japan Sea. In the long journey of nearly 500 miles, the only large town passed is Ninguta, situated on the upper waters of the Mutan Kiang or Peony River, an affluent of the Sungari, coming from the south, which it joins at the town of Sansin. The banks of the Peony River ('Hurka' in Manchu) are known as the home of the Fish-skin Tartars, the aboriginal inhabitants of Northern Manchuria, who lived by fishing and hunting, and are now almost extinct under the last hundred years' advance

of the agricultural Chinese into their domain. These Tartars derive their name of 'Fish-skin' in that they clothe themselves in the skin of the Tamara, a species of salmon whose flesh and skin are reputed to possess marvellous heat-giving properties. Ninguta lies some ten miles to the south of the railway line and is a flourishing city of 50,000 inhabitants.

One other railway in Manchuria (together with its branch line from Vladivostock to Habarovsk), and there is only this one other than the 'Chinese Eastern' we have just described, deserves notice before we quit this interesting region, which only want of space prevents our picturing at far greater length—and that is the Chinese railway from Shanhaikwan, the point where the Great Wall comes down to the sea and divides Manchuria from the intramural province of Chihli, to Sinminting, a line 200 miles in length and stopping short about 30 miles to the west of Mukden. This line is an extension of the Peking, Tientsin, Shanhaikwan, a railway solidly built by British engineers and with capital borrowed from Britain, but owned entirely by the Chinese Government and worked for their benefit. Unlike the 'Chinese Eastern' this line carries on a valuable local trade and pays handsome dividends. It notably serves a rich grain district in the Liao valley around Sinminting, and will doubtless, as soon as Russian opposition to its extension can be overcome, be carried through to Mukden.

Now, as we are about to conclude, and that war has actually broken out in Manchuria, we cannot but pay a just tribute to the foresight displayed by the talented author of *Manchu and Muscovite*, and we venture to intrude another quotation which we consider truly à propos in the present conjuncture. Speaking of the callous neglect of Chinese susceptibilities by the Russians in Manchuria—those of the merchant no less than those of the mandarin, Mr. Weale remarks:—'Two hundred years' experience of Englishmen in China who, in spite of their government, have succeeded far more than any other nationality, proves conclusively that, not only must the Chinese be considered in all commercial and economical matters, but their wishes and inclinations in the end carry all before them and win the day.'



CHAPTER XI

THE DEPENDENCIES: PART II. MONGOLIA

MONGOLIA, the land of the Mongols, covers a vast extent of territory. It comprises the wide and in parts waterless plateau that divides the warm, fertile lowlands of China on the south from the cold Siberian depression on the north; the intervening distance being about 1,000 miles. The actual area of the plateau is 1,300,000 square miles, three times that of Manchuria (including the maritime province alienated to Russia), which itself, as we pointed out in the preceding chapter, exceeds that of France and Germany combined. But area alone is no test of value, and while Manchuria, as we have shown, is one of the richest countries in the world, Mongolia is one of the poorest. This natural poverty is due, always excepting the western desert portion, not so much to poorness of soil as to unfavourable location; the plateau is walled in by mountains which intercept the bulk of the moisture in the winds which sweep over its highlands, rendering these hot and dry in summer; while the elevation renders them bitterly cold in winter, so that agriculture can only be attempted in a few favoured spots, thereby confining its inhabitants to a pastoral life and so making of the Mongols a nomad race as much by necessity as by predilection. As with all nomad races, the population is sparse, and so this huge territory extending roughly over ten degrees of latitude (40° to 50° N.) and no less than forty degrees of longitude (85° to 125° E.) in its greatest length and width, contains, by Chinese computation, some 2,000,000 inhabitants only, tent-dwellers and herders of cattle, with none but the most primitive industries, ignorant of everything but of the best means of maintaining and increasing the flocks which supply their few simple wants, and in which lies their only wealth. Mongolia forms a rough parallelogram, 1,800 miles east and west and 1,000 miles north and south; its frontiers are difficult to define with precision, owing, in the east, to encroachments on the fertile edges of the plateau by agricultural Chinese

settlers, who have gradually driven out the Mongols from their best grazing-grounds and incorporated them into the adjoining provinces of China proper; while in the west, as at Kwei-hua-chêng and outside the Great Wall generally, we find Chinese settlers slowly absorbing all the border land capable of agriculture, up to the margin of the Gobi, the 'great' desert, and on to where this latter descends into the depression of the Tarim and the sands of the Takla-makan desert. This invasion has been pursued steadily since the eighteenth century, the now absolutely peaceful Mongols quietly accepting the situation. We propose to take the political line as usually marked in the maps as the boundary, and to exclude Chinese Turkestan (commonly called the 'New Dominion' and administered directly by Chinese officials appointed from Peking) from the Mongolia we are describing, whose inhabitants are under the rule of their own chiefs, the Chinese suzerainty being practically limited to confirmation of these in their hereditary positions, and the receipt of a yearly tribute of Mongolian horses for supplying the Chinese cavalry.

The long northern boundary of Mongolia is coterminous with the southern frontier of Siberia from Kobdo and the upper waters of the river Irtish in the west to Dalai-nor, on the Manchurian border in the east. The extreme northern boundary ascends in the west to the north of the latitude of Irkutsk, where the crest of the lofty Saiansk range, an outlying northern buttress of the Great Altai mountains, walls off the high Mongolian plateau from the Siberian depression on its northern frontier, whence the land slopes gently into the frozen tundra and the Arctic Sea beyond. Continuing round the southern shores of Lake Baikal the Saiansk range, which runs generally in an east and west direction, finds its eastern termination in the wooded hills amidst which the great frontier mart of Kiachta (on the Russian side of the line, Maimachin on the Mongol side) is situated, the ground there falling to within 2,500 feet of the sea-level. If we thence proceed east along the Russo-Chinese frontier, the ground rises again, until, in the range of the Khingan mountains, it again reaches an elevation of 7,000 to 8,000 feet.

This Alpine chain which stretches SSW. and NNE. through

fifteen degrees of latitude, from the borders of Shansi in China proper up to the Russian town of Nerchinsk, where it forces the Amur to make its great northern bend, walls off the Mongolian plateau on the east and separates it from the depression which stretches from its eastern slopes across Manchuria to the sea. Intercepting, as it does, the moisture-laden winds from the Pacific Ocean beyond, this important range is a main factor in the contrast between the fertility of Manchuria on the one hand and the aridity of Mongolia on the other.

If we follow the Khingan range round southwards past Jehol and the imperial hunting-park to the borders of China proper, we find its southern prolongation continued to the north of Chihli and Peking, where it forms a mountain barrier of parallel ranges, 100 to 130 miles wide, walling off the plateau from the Chihli plain, to which it is rendered accessible by more than one narrow, water-carved cleft in the mountain wall,—the easiest and most frequented of these passes being that which leads through the Nankou and the gates in the inner and outer Great Walls that guard the road between Peking and Kalgan. The line of the range hence west is defined by the Great Wall itself, which follows the crest of the mountains of Northern Shansi and passes by Han-nor, north of Kalgan, at an elevation of 4,800 feet ¹, Farther west the range subsides into the Ordos desert and admits the return south of the Yellow River after it has been forced into making its great northern bend, by the lofty Lu-kwan range which forms the border-land between the provinces of Kansu and Shensi; from this point the river flows due south, for a distance of 400 miles, to its junction with the Wei at Tung-kwan, marking the boundary between the two provinces of Shansi and Shensi.

The Ordos desert, a southern extension of the plateau, is enclosed within this, 1,000 miles long, great bend of the Yellow River, and is inhabited by Mongols and, unlike the Ala-shan sand desert still farther west, furnishes pasture, though somewhat scanty, to the flocks and herds of the nomad tribes scat-

¹ The Great Wall east of Kalgan leaves the line of the mountain crests and cuts across the barrier until it dips into the sea at Shanhaikwan, and there forms the boundary between China proper and the Liaotung province of Manchuria.

tered throughout its area ; the western extension of the Great Wall, with the Lu-kwan range behind it, formerly defended the cultivated uplands of Shensi and Kansu from nomad incursions, as did the eastern Great Wall (at this point only a heap of ruins) north of Kalgan, with its corresponding belt of mountains, the metropolitan province of Chihli.

West of the Ordos, but separated from it by the mountain peninsula of the lofty Ala-shan range, which is enclosed in a northern outjutting extension of the Chinese province of Kansu, lies the desert of Ala-shan, as this eastern portion of the great Gobi desert is named. The existence of the Ala-shan desert is due to the interception of the rainfall by the high ranges along its southern border ; the Ala-shan range rising to 10,000 and 11,000 feet on the south-east, and the Richthofen range, with peaks ranging up to 20,000 feet, on the south-west. The Russian traveller, Prejevalsky, describes the fertility of these forest-covered mountains, upon which the clouds from the southern seas deposit their moisture in the south-west monsoon season, giving rise to the Sining and other northern affluents of the Yellow River, thereby enabling it, by the resulting increased water-supply, to pursue its long course through the Ordos desert without being lost by desiccation. On the other hand, the limited drainage from the northern slopes of these mountains after feeding the Hei-ho, or Black River of the Chinese—the Etsingol of the Mongols—finally disappears in the desert, forming a salt lake known as the Kashun-nor. The existence of this fertile mountain strip placed between the Gobi desert on the one hand and that of the Koko-nor plateau on the other, accounts for the high-road to the ' New Dominion ' that runs along it, as well as for the curious long, narrow north-west extension of the province of Kansu in this direction which is so noticeable on a first glance at our maps of China.

Proceeding still farther west, the desert of Gobi extends into Turkestan and encircles the Mahometan-peopled oases of the Tarim basin, a region politically outside Mongolia, though physically one with it. The Ordos and Ala-shan deserts appear now as desiccated lake-beds, and together with the Tarim basin would seem to have been, at some period still more remote, an arm of the sea which once filled the area now occupied by the

Gobi desert and to have extended, not improbably from the foot of the lofty Altyn-tagh to the Arctic Sea.

Crossing this gap in the surrounding wall, we come, still proceeding west, to the east-and-west running range of the Bogdo-ula, and then, leaving on the south Dsungaria and the province of Ili, which form part of the administration of Chinese Turkestan, we cross to the southern Altai range, and, round again by Uliassutai and Kobdo north-west to the Saiansk range which walls off the north-western extension of the high plateau from the depression of Lakes Ala and Balkash (700 to 800 feet above sea-level) and the lowlands of Siberia. As in the north the land slopes from the northern outposts of the dividing range gradually down to sea-level in the Arctic Ocean, so in the west the land slopes away from the plateau in a gradual descent to the Caspian eighty-four feet below sea-level. In allusion to this natural frontier between the two empires, the Russian writer Veniukoff, in his review of the frontiers of Russia in Asia, makes an interesting remark worth quoting (Delmar Morgan's translation of Prejevalsky's *From Kulja across the Tien-shan to Lobnor*, Sampson Low, 1879): 'The Treaty of Chugushak (1864) was never fully carried out, probably owing to the outbreak in 1864 of the Dungan insurrection, and the Dsungarian section of the frontier from Khan-Tengri on the south to Kharbar-assu on the north, remains practically undefined.' East of this again, in the Altai-Sayan (Saiansk) section, he estimates the Chinese regular forces at 580 Manchus and Chinese, distributed in two towns situated 2,000 versts (1,300 miles) from the Great Wall, i.e. from the frontiers of China proper. 'From Kobdo and Uliassutai we could drive the Chinese out at any time, for their fortifications are so weak that in 1870 and 1872 bands of badly armed insurgents had no difficulty in taking them. But (he adds) it is clearly our interest not only not to molest the Chinese in this part of Central Asia, but, on the contrary, to use every means in our power to consolidate their rule over the local nomads.' 'A glance at the map (adds Mr. Delmar Morgan) will at once convince the reader, how unwise it would be for Russia to advance beyond the splendid natural frontier afforded by the mountain ranges of South-western Siberia, into the steppes and deserts on the south.'

We thus see Mongolia to be a high steppe land, ranging from 3,000 to 5,000 feet above sea-level, walled in by encircling ramparts of mountains which separate it on the north and west from Siberia and Russian territory, on the east from Manchuria, and on the south from China and Eastern Turkestan, all lands situated at lower elevations, the descent to which is made through passes in the mountain girdle, whence the land falls again in every direction gradually to the nearest sea. Only in the south-west, descending to Turkestan we come to a 'dry sea,' as the Chinese name the basin of the Tarim, a depression which intervenes between Mongolia and the far loftier plateau of Tibet to the south.

The plateau is not all level steppe as is the impression derived after studying the descriptions given us by travellers who have visited the 'grass-land,' as the Chinese term the rich prairie plateau north of Kalgan; on the contrary, spurs run out from the mountain girdle into the plateau and cross it in many directions, the loftiest and longest ranges being those emanating from the Altai in the west, the little known Kobdo district being almost wholly mountainous. Nor is the country generally barren as is the Sahara in Africa or the great central desert in Australia. It rather resembles the high veldt of South Africa with its adjoining deserts; though the extent of the Gobi, the actually barren portion of Mongolia, is greater than that of the deserts that lie west of the Transvaal and the Orange River. The actual waterless sand desert of Gobi, including the Ordos country and the Ala-shan, is confined to the south-western portion of the plateau and covers barely a fourth of its whole area; the remainder is steppe, in parts fairly watered and covered with rich grasses capable of feeding immense herds of cattle and horses, in other parts arid and comparatively barren, providing only sparse nourishment for camels and antelope. In the west, the river Irtish, flowing out of Lake Zaisan, drains a valley to the south of the Altai containing agricultural settlements, and in the north the rivers Khua-kem, to the south of the Saiansk range, and the Selenga with its affluents which drain the Urga steppe into Lake Baikal, water valleys comparatively fertile and well wooded. In fact, the 200 miles, wide stretch of undulating land along the northern border, which is tra-

versed by the high-road between Kiachta and Urga, is distinguished by abundance of trees and water—undulating country drained by the Orkhon and its tributaries which ultimately unite in the Selenga : in many of these valleys a rich black loam is found, cultivated by Chinese colonists. But south of Urga, which is situated 4,200 feet above sea-level, the gravelly steppe begins, a steppe in part floored with fragments of agate and chalcedony, and the confines of the Gobi are entered ; the soil still supports scattered desert shrubs, and water is obtainable by well-sinking. Here is no remorseless sand-waste with its waves of moving sand such as are found to the south and west of the Altai and its eastern prolongation the Gurhan Saikhab, the range that may be looked upon as the backbone of the plateau, and which forms a rough dividing line between the Eastern and Western Gobi. The Eastern Gobi slopes from its marginal mountains to a depression in the centre, elevated only 2,400 feet above sea-level, probably the dry bottom of an ancient salt lake, into which the now dried-up watercourses, with which the ravines of the projecting rocky ridges that traverse the steppe are scored, drained at a time prior to the recent desiccation of the country.

South of this depression the land rises again to 5,400 feet, as the Alpine range is reached which limits the steppe in this direction of China. The ranges which wall in China on the north and are 100 to 150 miles in through-diameter are Alpine in character and contain many fertile valleys, all occupied by Chinese settlers ; such valleys we find south of the frontier mart of Kalgan, 2,800 feet above the sea, built on the southern slope of the mountain range, through which breaks the narrow pass leading up by a farther ascent of 2,000 feet to the plateau which commences 10 miles to the north, the only road giving easy access, by a comparatively gentle descent, to the wide Peking plain below. This descent from the plateau into the low-lying plain of Chihli, via Kalgan, is by the most gradually sloped and easily traversed of all the main roads leading from Mongolia into China, and it is consequently the one which has been most strongly fortified by the Chinese ; it is also the route in which the transition from the rugged mountain rampart to the level grass-covered table-land is most striking and abrupt. The

Peking plain which slopes seawards from the foot of the mountains at the imperceptible inclination of about one foot to the mile, abuts directly upon the cliffs of the barrier range, giving unmistakable evidence of these having once formed the sea-coast of the to-day still steadily narrowing gulf of Pechili. At the village of Nan-kou (southern mouth) situated thirty miles to the north of Peking, a cleft in the mountains, formed by an ancient river which has now dwindled to a tiny streamlet, gives access to the Nan-kou Pass. Hence an ascent of 1,500 feet in a distance of fifteen miles leads to the summit of the pass, through precipitous granite mountains, rising, in the lesser Wu-tai-shan to the left, to a height of 9,000 feet and upwards. The pass is crossed by no less than four walls, under gateways pierced in which the cart-road passes; these walls are continued over the crests of the surrounding mountains; they are all alike solidly built of dressed stone, with towers and battlements, are in a good state of preservation and give evidence of the great importance attached in former times to this natural break in the rampart that guards the imperial city of Peking. They testify to an amount of labour almost inconceivable until seen, and date from various periods, the latest having been built by those indefatigable road- and wall-builders, the Mings, the last of the few purely Chinese dynasties¹. This pass leads up to the first step in the mountains, a valley filled in and characteristically levelled by the wind-borne loess, yielding a plain some ten by twenty miles in extent, bounded on the north by the precipitous Chi-ming-shan, a limestone range yielding anthracite coal. A gorge has been cut down through these mountains by the waters of the muddy Yang-ho, and high above its banks a cornice road has been excavated in the hard, blue limestone

¹ It is across this pass, at a point where, passing from China, the limestone rocks begin to be replaced by granite—coarse, crystalline and of a reddish hue, that, in 1345, was built the beautiful and famous gateway, familiarized by the many photos taken of it, and of the inner wall which it here pierces. The interior of the hexagonal archway is covered with bold carvings of Buddhist divinities which the dry climate has preserved almost intact, and with a Buddhist invocation, or Dharani, in six languages: Devanagari and Tibetan in horizontal lines, and Mongol, Uigur, Manchu and Chinese in vertical lines. The spot where this gateway stands is known as Chü-yang-kwan, 'Imperial stopping-place,'—from Chin Shih Hwangti, the builder of the original Great Wall (B.C. 246-210), who is said to have encamped here while planning his great work.

wall, by which the traveller ascends the next step, and reaches the famous fruit-growing valley-plain of Hsuan-hua, Polo's Sindachu. This is another of the loess-formed, levelled mountain-basins that, as Richthofen tells us, are distributed throughout an area of 250,000 square miles on the Mongolian border and in North China; and of these Hsuan-hua is one of the most fertile and thickly populated, and its mild climate admits of the low lands along the Yang-ho being endyked into paddy-fields, which elsewhere are seldom seen north of the Yellow River. The Hsuan-hua loess plain extends about twenty miles in every direction and at its north-western extremity, built into a bight running into the precipitous engirdling mountains, is the large frontier city of Kalgan, the cart-road to which is sunk in parts between vertical walls of loess. Kalgan stands at the foot of another pass, not unlike that at Nan-kou, a picturesque cleft in the mountains, about 200 yards wide, giving access to a winding, gradually ascending road, fifteen miles in length, the bed of a generally dry stream, but which on occasions is filled by destructive storm water. The pass itself has an almost flat, gently ascending floor of gravel and small boulders, with walls of porphyry and metamorphic schists, covered up in places by the all-pervading loess. This last pass lands us on the Mongol plateau proper, here 5,000 feet above the level of the sea. At this point stands the village of Han-nor, so named from an ancient lake on this spot, the only trace of which to-day is a muddy fresh-water pond that stands at the summit of the pass, on a ridge which forms a kind of isthmus between the rugged mountain rampart just traversed and the level, lava-formed plateau of Mongolia—a wide, broken, half loess-filled, valley depression separating the two regions, the contrast between which affords a most fascinating *coup d'œil* as viewed from a neighbouring peak over which the Great Wall passes. On one side we have the confused and broken mass of precipitous mountains extending south-west and north-east as far as the eye can reach, while across the intervening depression rises the smooth vertical outline of the wall of the table-land with its level surface fading away to the far horizon; nowhere is the appellation of table-land more strikingly appropriate to the eye than at this romantic spot.

From here starts the great high-road to Urga and Kiachta ; and here we cross Chin Shih Hwangti's original wall, now a pile of unhewn and unmortared brown-black volcanic rock fragments. The Great Wall here marks the natural line of demarcation between a settled agricultural people and nomadic pastoral tribes,—passing from a region of limestone, coal-measures and granite to one of tertiary and recent volcanic deposits,—from the fertile wooded valleys of Northern Chihli, rich in grains and fruit, to a treeless expanse of grass, the support of innumerable flocks and herds, and where 'argol,' the dung of cattle, is the only fuel. The difference in climate is equally striking ; once on the plateau, even in early autumn, one finds no shelter from the cold, piercing, north-west winds, while in the Peking plain below it is still summer¹.

¹ One hundred and fifty miles to the north-east of Kalgan the little-less celebrated pass of Ku-peh-kou leads up, through the Khingan range, from the Peking plain to Jehol and Dolon-nor (in Chinese, Lama-miao). This pass is famous as that by which Lord Macartney's embassy ascended on their way to visit the great emperor, 'Kien-lung,' in 1793, and of which Staunton has left us such a graphic account. The early emperors of the present dynasty were wont to migrate to their Mongolian hunting-grounds every autumn, a custom which has been discontinued by their effeminate successors,—the nineteenth century having passed without a single imperial visit to Jehol, except when, on the approach of the Anglo-French expedition to Peking in 1860, the effete emperor Hienfung fled there to die. Thus this pass, the road through which was originally cut and paved regardless of cost, and which to this day is lined with the ruins of magnificent rest-houses, has fallen into comparative disuse, though still visited by rare tourists. It crosses mountains similar to those near Kalgan but better wooded : their south-east face is covered with an undergrowth of hazel nut, wild rose, and the fragrant artemisia, while the ravines are filled with elm, birch, maple, pine and oak, and the colder north-west face with dwarf willow and elm. The wild silkworm is largely cultivated throughout this region, being fed by the leaves of the *Quercus obovata* (Dr. Bushell). The mountains here are mostly conglomerate and limestone, affording extremely rugged and picturesque outlines. The range is cut through by the Luan-ho, a river debouching at the foot of the Liaotung Gulf and which was formerly navigated up to Jehol, which stands in a rich mountain valley lying between the inner and outer ridges of the range 1,250 feet above sea-level. To the north of Jehol, in the wide fold embraced in the folds of the Khingan range, is the imperial hunting-ground (Wei-chang), a park some six thousand square miles in extent, surrounded by forty guard-houses occupied by an army of Manchu 'bannermen.' The grand palaces built by Kanghi for himself, his court and his suite of horsemen and foot-soldiers, are long since deserted and in a ruinous condition.

Continuing across the higher inner range, the pass leads, still by the valley of the Luan river, to Dolon-nor (seven lakes), a town situated in a barren sandy plain, with a population of about 20,000, chiefly Chinese ; thence the road leads twenty-five miles NW., over a series of low sand-dunes and across

East of this north and south line across the plateau (Kiachta to Kalgan) the steppe slopes upwards towards its eastern limit, the Alpine range of the Khingan mountains, and the soil, sandy and in some places saline, produces excellent grass throughout, as is seen in the fine condition of the animals, camels, horses, and sheep that the Mongols bring down in large numbers from this region into the Peking plain for sale and hire. To the west of the line the country falls off in value as we proceed in the direction of Central Asia, the rainfall being less and the prevalent north-west gales, often sand-laden and always devoid of moisture, being more severe and persistent. And yet, the many mountain ranges traversing the country, though often rising out of sand desert on either side, are able to arrest sufficient moisture in the shape of rain and snow during the short summer season, when southerly winds prevail, to provide their flanks with forest growth and their summits with snow caps, whence waterfalls descend into and are lost in the surrounding deserts. Thus, turning west again, we find the In-shan, north of Shensi, where its western extension bars the great north bend of the Yellow River to the south, to be a well-wooded range, as is the lofty Richthofen range, the backbone of Northern Kansu; but the intervening range of the Ala-shan, cut off by higher mountains to the south, shows up a wilderness of igneous rocks

a steep range of volcanic hills into a wide rolling prairie covered with long grass and fragrant shrubs, the haunt of numerous herds of antelope,—to the ancient Mongol capital, 'the city of 108 temples,' now known as Shangtu, which is situated on the river of that name. The city of Shangtu is now in ruins, but its remains testify to its former populousness and importance. Kanghi established there a great lamasera in 1694, which still houses some 2,000 to 3,000 lamas, who live in sloth and dirt. Here is the park described by Marco Polo, inside which were 'fountains and rivers and brooks and beautiful meadows, with all kinds of wild animals, which the emperor has procured and placed there to supply food for his gerfalcons and hawks which he keeps there in mew. The khan himself goes every week to see his birds sitting in mew, and sometimes he rides through the park with a leopard behind him on his horse's croup; and then, if he sees any animal that takes his fancy, he slips his leopard at it, and the game when taken is made over to feed the hawks in mew.'

We ourselves once met a party of 100 men bound for this region, each carrying two huge tame unhooded eagles, sitting one at each end of a carrying-pole borne on a man's shoulders,—to hunt for game, chiefly hares, to supply the Peking market. The hunting is pursued from September to January, when the frozen carcasses of the quarry are taken to Peking for sale.

with micaceous limestone in between. The Ordos desert forms the first step down on this side from the Mongolian plateau to the lowlands of Shensi and the valley of the Wei, the average elevation of the Ordos being 3,000 feet only.

Still farther west and trending north, we come to the mountainous region of the Altai and its southern offshoots, and so reach the Russian frontier in the west by way of Uliassutai, Kobdo and Tarbagatai. This western country of the Mongols, unlike the central steppe, is characterized by almost continuous mountain ranges, their prevailing direction being east and west, and giving rise to numerous short rivers terminating in salt lakes, except in the northern slopes of the rampart, where, on crossing the watershed, we find the rivers naturally flowing north and communicating with the Siberian system. All this region affords pasturage for the flocks and herds of the nomad Kirghis and Kalmuk Mongols, which feed on the mountains in summer and retire to the warmer plains in winter, often crossing into Russian territory (Semipalatinsk), where at a lower level they meet with a milder climate. In the oases at the foot of the mountains, agriculture is also carried on by colonies of Chinese. This difficult region has been little explored, no main roads of traffic leading through it, such as we find on the south and east, but only tracks of the camel caravans which carry on the limited trade of the region, tracks quickly obliterated by the moving sands and dimly marked by the bones of the dead pack-animals. The region is very sparsely inhabited by nomad Mongols; its extreme western border is famous in history for the emigration thither in the eighteenth century of the Starovertsi or 'old believers' from Russia, a few of whose descendants are still to be found in the wild recesses of the Altai.

The chief road across Western Mongolia, from China to Kobdo—from the Great Wall, north of Shansi, to the Russian frontier, a distance of 1,500 miles—starts from Kuei-hua-cheng, a point 170 miles to the west of Kalgan, or, as this latter place is called by the Chinese, Chang-kia-kou. From Kuei-hua-cheng, the eastern gate of the desert and great frontier mart for the barter by Chinese of tea, flour, and millet, in exchange for Mongol live-stock and skins, and latterly notorious by the murder there of Lieutenant Watts-Jones of the Royal Engineers during the

'Boxer' uprising of 1900, the road proceeds through nearly 1,000 miles of desert country, to the north of the 'Southern Altai' range to Uliassutai. Of this road, Mr. Ney Elias, who traversed it in 1872, writes: 'The general aspect of the desert between Kuei-hua-cheng and Uliassutai is that of lone hills or downs with valleys and plains intervening—more of a stony than a sandy nature,—here and there intercepted by low rocky ranges with scarcely any grass' (Ney Elias, *Geographical Journal*, 1873). Water and pasturage are scarce, the best pools being found in or near the rocky ranges of hills that intersect the desert at intervals, the water in them being always sweet, whilst in those on the plains it is frequently brackish. The chief mountain ranges crossed are the Khangai, composed of bare granite, red and gray, but giving rise to the clear, sweet stream of the river Baitarik which flows southwards through a rugged country which, however, supports large numbers of wild ponies and asses. Before reaching Uliassutai, a snow-covered pass of about 8,000 feet is crossed in the mountains which give rise to the tributaries of the river Jabkan. A gradual descent hence leads to Uliassutai, situated 5,700 feet above sea-level, in a deep valley, having a narrow opening or gorge at its eastern end, through which flows the Uliassutai river; the climate of Uliassutai is severe and the prevalent cold dry winds render the valley barren, nothing but a few vegetables being grown in it; the population is about 4,000, chiefly Mongol.

The road continues to Kobdo by way of the Turgen lake, from the south-west shores of which a bold chain of mountains runs NNW. to the southern extremity of Lake Aral. Ranges of sand-hills composed entirely of loose sand form peculiar features in the country, being sometimes nearly 200 feet in height; a gale of wind transforms their outline and an inconsiderable breeze is sufficient to obliterate the tracks of a large caravan of camels almost immediately after it has passed, extinguishing all traces of the line generally traversed, and rendering it dangerous and disastrous for the next comers. In the month of November, Mr. Elias crossed this lake on the ice. NNW. of the lake stands Kobdo, the chief town of the district situated in a large stony plain mostly devoid of vegetation,

although some opium, cabbages, and turnips are grown. The trees which are said formerly to have flourished here have been all destroyed. The population is about 6,000, chiefly Mongol. From Kobdo the road crosses the lower range of the northern Altai and proceeds to the Chinese border town of Suok by a pass of 8,000 feet. The chain of the Altai here forms the boundary between Russian Siberia and the Chinese territory of Mongolia; an excellent natural boundary, and serving as a line of demarcation between the Kalmuks on the north and the Mongols on the south of the line.

We have thus seen that Mongolia comprises a vast plateau, in part desert (known to the Chinese as Shamo (i.e. Sand-waste), and to the Mongols as Gobi), in part grassy steppe, and in part mountain ranges with peaks rising to the snow-line; the country extending from the upper waters of the Irtish on the west to Manchuria in the east, and from Siberia on the north to the Great Wall and the Mahometan countries lying along the Tien-shan on the south. The nomad tribes who have inhabited this wide region from time immemorial were once probably more numerous than they are to-day, when—to judge by the fall in the level of the many inland salt-lakes, as shown in the markings on their shores—the country obtained a more ample rainfall than it now enjoys and so supported a more numerous population. In the centre of the region are still to be seen the ruins of the Great Khan's (Genghis) former capital of Karakorum, situated north of the Altai on the head-waters of the Selenga river.

The Mongols, splendid horsemen and extraordinarily hardy, have ever been a thorn in the side of the peace-loving agricultural Chinese, who, as we know, already in the third century B.C. undertook that stupendous defensive work, the Great Wall, in the vain hope of confining them to the steppe. Converted to Buddhism in its form of Lamaism, some five hundred years ago, their character has been softened, while the practice of every family devoting one or more of its sons to the priesthood, in which as Lamas they lead a celibate life, has tended to prevent excess of population above the resources of the country; and since, in the thirteenth century (A.D. 1280–1341), the short-lived Mongol dynasty of Genghis Khan and his successors con-

quered and occupied China, until driven out by the purely Chinese dynasty of the Ming in 1368, China has been unmolested by her northern neighbours, and the old *officina gentium* has ceased to be a menace to the world outside. When the Mongol dynasty was then driven out by the Mings, who were too glad only to be let alone by their warlike neighbours, the Mongols remained independent; but after the accession of the present 'Tsing' dynasty and in the reign of the warlike emperor Kanghi (1662-1723), they were again brought under the Chinese yoke, their 'princes' having to come to Peking for investiture and being forced to pay an annual tribute of camels, cattle, and horses to their Peking rulers.

It was not until the year 1691 that Kanghi succeeded in conquering the powerful Khalka tribe, while Dsungaria and the Kalmuks were reduced to subjection by that other famous emperor of the present dynasty, Kienlung, in 1756. The Mongols are distinguished by their hospitality and friendliness to strangers, where their superstitious fears are not aroused. Their features differ little from those of their neighbours (except that the broad flat features and high cheekbones are more pronounced), the Chinese and the Manchus; though their life in the open air, exposed to the fierce winds of the high steppe, gives them a ruddy tanned skin in contrast to the yellow pallor of the sedentary Chinese. Their country will ere long be traversed by the railway which the Russians are contemplating from Peking to Kiachta, thence to connect at Irkutsk with their great trans-Siberian line; this short cut will bring the capitals of the two empires—Peking and Petersburg—within ten days' journey of each other, and will bring Mongolia into line with the civilization of the West, and, like China, out of its old seclusion; its undoubted mineral resources will then be developed and a sedentary population to a great extent replace or convert the present nomads; it will then be found that there is more in Mongolia than the desert of Gobi.

CHAPTER XII

THE DEPENDENCIES: PART III. TURKESTAN

IF we start from the southernmost corner of Mongolia where the Gobi desert impinges on the Great Wall, north of the Chinese province of Kansu,—crossing, on our way south, the arids and waste of Ala-shan,—we are suddenly brought up by the high mountain range that divides the Gobi desert on the north from the little-less desert country of the Koko-nor and Tibet on the south.

This mountain range, crossed by Prejevalski and named by him the Richthofen range, after the celebrated German traveller of that name, forms a fertile isthmus between two deserts by which the road leads from China proper to the Tarim basin and the Lob-nor depression in the west, and so brings us to the subject of our present chapter—Chinese Turkestan.

Chinese Turkestan, also known as Eastern Turkestan, is officially called by the Chinese, Hsinking or the New Dominion, adding, since 1877, as the result of Tso Tsung-tang's great campaign against the successors of Yakob Beg, a nineteenth to the original eighteen provinces of China proper,—although this name is unknown to the inhabitants, who are familiar only with the local names, such as Ili with Kulja to the north of the Tien-shan; and Khotan, Yarkand and Kashgar to the south¹. The area of the country is about half a million square miles: it forms a wedge inserted between Mongolia on the north and Tibet on the south; closed in by the Pamirs on the west and open to China on the east, a depression falling at its lowest point, at Lake Lob-nor, to 2,000 feet above sea-level, the average

¹ It is noticeable, as showing the laxity common in drawing up official documents where China is concerned, and the general ignorance of Chinese geography, that in the new 'Mackay' treaty drawn up between China and Great Britain in 1902, China is spoken of as 'the eighteen provinces,'—whereas in the subsequent American treaty with China, the clause, which is transcribed almost verbatim from the British Treaty, speaks of 'the nineteen provinces.' Other documents speak of China as 'the twenty-two provinces,' meaning thereby to include the 'three Eastern provinces' of Manchuria now occupied by Russia.

height of the Mongolian plateau on one side being 4,500 feet and of the high plateau of Tibet on the other 15,000 feet. This remarkable depression separating the two great plateaux of Eastern Asia is drained by the Tarim river, and the basin of this river, together with that of Dsungaria to the north of the Tien-shan mountains drained by the Ili river,—a valley which, however, belongs geographically to Mongolia,—constitutes Eastern or Chinese Turkestan. The basin is bounded on all sides by high mountains which form a horseshoe-shaped amphitheatre, at the feet of which are set out a series of oases watered by streams rising in perpetual snow, a few of which go to swell the long, thin stream of the Tarim, while the majority are lost in the great central sand-waste of the basin,—the worst desert of all being the moving sand-dunes of the Takla-makan; the opening in the horseshoe leaving room for the direct connexion of this western offshoot of the Gobi desert with the wider but less arid desert of Mongolia proper. Richthofen, in a paper read before the Berlin Geographical Society (*Bemerkungen zu den Ergebnissen von Oberst-Lieutenant Prejevalski's Reise nach den Lop-nor und Altyn-tagh*), well summarizes the aspect of this unique basin in these words :—‘ The region which gives birth to this river (the Tarim) is on a scale of grandeur such as no other river in the world can boast. It is girt round by a wide semicircular collar of mountains of the loftiest and grandest character, often rising in ridges of 18,000 and 20,000 feet in height, while the peaks shoot up to 25,000 and even 28,000 feet. The basin which fills in the horseshoe-shaped space encompassed by these gigantic elevations, though deeply depressed below them, stands at a height above the sea varying from 6,000 feet at the margin to about 2,000 in the middle, and formed the bed of an ancient sea. From its wall-like sides on the south, west, and north, the waters rush headlong down, and though the winds, blowing from all directions, deposit most of their moisture on the remoter sides of the surrounding ranges, viz. the southern foot of the Himalayas, the west side of the Pamir, and the northern slope of the Tien-shan, the streams formed thereby, winding through the cloud-capped, lofty cradle-land, and breaking through the mountain chains, reach the old ocean bed but only in limited quantity. The smallest of them disappear

in the sand, others flow some distance before expanding into a level sand basin and are there absorbed. Only the largest, whose number the Chinese estimate at sixty, unite with the Tarim, a river 1,150 miles long, and therefore in length between the Rhine and the Danube, but far surpassing both in the massiveness of the surrounding mountains just as it exceeds the Danube in the extent of its basin. Its tributaries form along the foot of the mountains a number of fruitful oases, and these, by means of artificial irrigation, have been converted into flourishing cultivated States and have played an important part in the history of these regions.'

Eastern Turkestan is an expression employed by European geographers to distinguish the Central Asian desert east of the Pamirs with its oases of Kashgar and Yarkand, and ruled by China, from the western desert of the Aralo-Caspian depression with its oases of Khiva, Bokhara and Samarkand, now ruled by Russia and generally known simply as Turkestan. At times Dsungaria and the Ili valley in Kulja are included in our maps of Chinese Turkestan, at times not. Seeing, however, that these latter districts are under direct Chinese rule with a special governor deputed from Peking, possess a sedentary population, and so are distinguished from Mongolia, which is inhabited by nomad tribes under their own princes, we have treated them as included in our account of Eastern Turkestan, the more so as their value to China consists in the road to the West that lies through them—which is known as the 'Great North Road of the Tien-shan,' in contradistinction to the 'Great Road South of the Tien-shan' which leads up the Tarim valley. The Tien-shan or 'Celestial Range' is one of the many long mountain-folds that, starting out in more or less parallel lines from the great central nexus of the Pamirs, traverse Eastern Asia in a generally south-west north-east direction; of these, the Tien-shan range shuts off the Ili valley from the Tarim basin, of which it forms the northern boundary, and, at the same time, separates the south road, Tien-shan nan-lu, from the north road, the Tien-shan peh-lu. Connected with the mountains of Kokand and Tashkent farther west, and starting from about the meridian of Kashgar (longitude 75° E.), this imposing range, in its eastern prolongation in the Bogdo-ula,

extends as far as the 96th meridian of longitude east, where it terminates in low hills which gradually disappear, sinking under the sands and clays of the Great Gobi. All this region has been conquered and of late years pertinaciously held by the Chinese, as providing the one practicable through route to the West and the road which opens the way to the invasion of China by the restless tribes of Central Asia.

From the days of the Roman Empire up to the time that the sea-route to China was opened up by the Portuguese navigators in the fifteenth century, the one road of communication between the eastern and western extremities of the Eurasian continent lay by way of the deserts of Chinese Turkestan. Leaving China, the road in question starts from the city of Suchow¹ in Northern Kansu and passes round the western extremity of the Great Wall, through the 'Jade Gate' into the desert beyond, until it reaches the oasis of An-hsi (a 'chow,' or prefectural city). At An-hsi the road turns due north until it reaches Hami, an important post situated in an oasis at the foot of the Bogdo-ula and near the point where the eastern promontory of the Tien-shan dips under the Gobi plain. The oasis of Hami is formed by the streams descending from the Bogdo-ula, small rivulets quickly dissipated in this thirsty land. From here on, the road turns west to Turfan, at which place the bifurcation of the road takes place, the north road crossing the Bogdo-ula to Urumtsi² and so north of the Tien-shan to Kulja; while the south road turns south, past Lake Bagarash (or Tenghiz) to Korla on the Konchen-daria, an important affluent of the Tarim which issues from this lake, and so on along the southern slope of the Tien-shan to Kashgar.

¹ The province of Kansu takes its name from this city and from Kanchow situated farther east: these two prefectural cities, Kan and Su, derive their main importance as being the gates to the West through which the road from Lanchow, the capital, passes out into the desert. The Jade Gate is supposed to derive its name from being the site of the import into China of the much-prized nephrite from Khotan.

² Dsungaria is, by some writers, presumed to have been the home of the semi-mythical Prester John of mediaeval travellers, with the seat of his rule at Bishbalik, an ancient city to the north-west of Urumtsi. His kingdom is supposed to have been destroyed in the fourteenth century, by Timur (or as he is styled by English writers, Tamerlane), the devastator of Central Asia and Northern India; having been previously conquered by Jagatai, one of the numerous sons of the great Genghis and whilom ruler of Bokhara.

Proceeding on from An-hsi by the 'north road,'—the Tien-shan *peh-lu*,—the track leads through the Gobi desert to the oasis of Hami, and then crossing the Bogdo-ula by a low pass, leads on to the oasis of Urumtsi, situated on the northern slope of the range, and in which now resides the Futai or Chinese governor of Dsungaria.

From Urumtsi, the road continues west along the edge of the Dsungarian desert to Bamor on the Sairon-Kol, a salt lake situated in an angle of the Alatau range. Here the road turns south, recrosses the mountains and descends into the fertile valley of the Ili, traversing Kulja, the capital of Dsungaria; then on through the Russian province of Semirechinsk (seven rivers) by a comparatively easy descent, by way of Kokand and Bokhara, to the Aralo-Caspian depression, and so to Persia, Asia Minor, and Europe.

The south road—Tien-shan *nan-lu*—leaves the north road at the oasis of Turfan, and then crosses the desert to Karashar and Korla; thence it proceeds under the southern slopes of the Tien-shan to Kucha and Aksu, following round the inner edge of the horseshoe, along its northern border, to Kashgar on its western edge, where the road practically terminates in the cul-de-sac of the Pamirs; confining itself within the limits of the Tarim basin, the road now pursues its way round the interior edge of the horseshoe, and, after connecting Kashgar with Yarkand, turns back to the east and passing through the oases of Khotan and Keria, situated on the southern margin of the Takla-makan sand-waste, connects again by way of Cherchen and Lob-nor with the desert road to An-hsi, the point from which we set out on the main Tien-shan *nan-lu*, via the oases of Korla, Kucha, and Aksu, situated on the north side of the basin; the road thus encircles the great sand-waste of the Tarim, a basin surrounded by lofty snow mountains with a ring of oases at their feet, of which the Chinese count sixty in a circle of 2,000 miles.

It is agreeable to turn from the wide desert of the Tarim basin, mitigated though it be by its rich border of oases, to the land across the Tien-shan, on the northern slope of that range,—the fertile valley of Ili. This province of Ili, the gem of Chinese Turkestan, was lost for a time to the Chinese Empire as a result

of the Mahometan uprising in Turkestan in 1870. At this period, the lower Ili valley, from New Kulja downwards to the mouth of the Ili river in Lake Balkash, was totally devastated by the rebels, and the Russians occupied Kulja in 1871 to restore order. Ten years later, this, the richest province in the Chinese dominions outside of China proper (always excepting

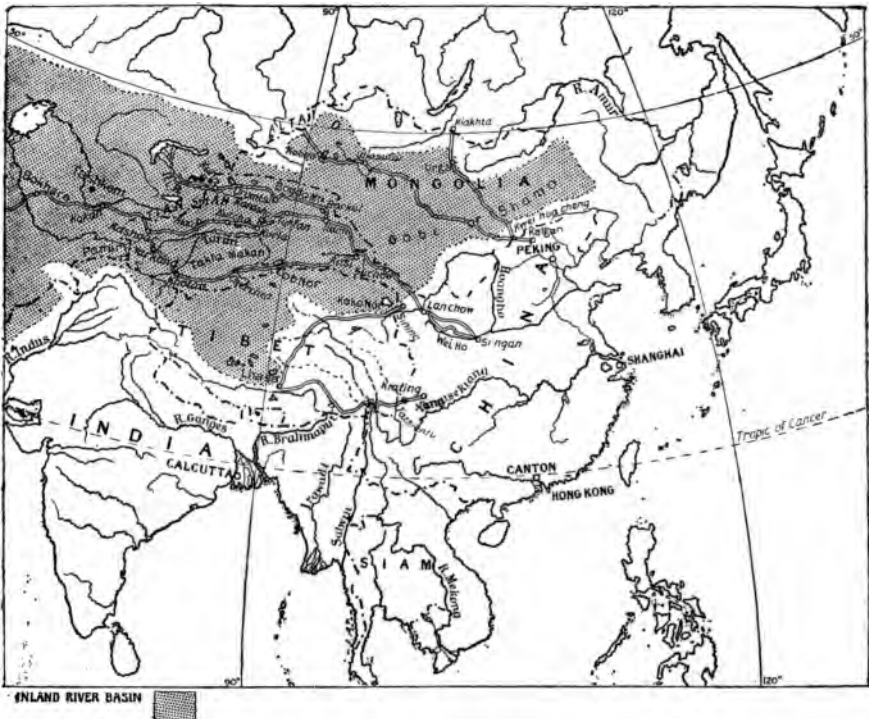


FIG. 26.—Routes from China proper to outlying Dependencies.

Manchuria), was restored to the Chinese by the Russians, and Ili now again forms an integral part of the 'New Dominion.' Prejevalski thus describes this favoured region of Central Asia: 'Our road lay at first up and alongside of the Ili, whose valley is here thickly settled by Taranchis (from Taran—agriculturists). Clean, pretty villages with gardens, shaded by lofty silver poplars, follow each other in quick succession. In

the intervals are cornfields irrigated by numerous water-courses, whilst on the meadows along the river bank large herds of sheep, oxen and horses are grazing. The population is everywhere apparently prosperous; the Mohammedan rising not having desolated this part of the valley. The districts that were laid waste lie below Kulja, following the Ili. Here, too, agriculture once flourished, but since the extermination of the Chinese inhabitants by the Taranchis and Dungans, the villages are mostly destroyed, and even such towns as old Kulja, Bayandi, Chimpanzi and others are in ruins, the fields deserted and choked with weeds. After crossing to the left bank of the Ili near the mouth of the Kash (50 versts beyond Kulja), we continued as before to ascend its valley, in this part twenty versts wide, and having the appearance of a steep plain with a clayey and slightly saline soil, producing *Ceratocarpus*, dwarf worm-wood, and *Lasiogrostis*; in the more fertile parts *Astragalus*, a few kinds of herbs and plants of the order *Compositae* and small gnarled bushes, while the river bank is fringed with thick cane-brake.'

The width of the Ili near the mouth of the Kash is about 500 feet with a very rapid stream. Taranchi villages continue for twelve versts farther up the right bank from the confluence of the Kash; the left bank has no settled population. Here only occasional fields temporarily tilled by the Kalmuks may be seen, and these only nearer the river Tekes. The last-named stream flows from the Musart (the ravine up which the noted pass over the Tien-shan, to the south, leads), and unites with the Kunges to form the Ili, which empties its muddy waters into Lake Balkash.

Prejevalsky left the Ili valley for the Tarim basin by way of the Yulduz, a double plateau lying in a fold of the Tien-shan 7,000 to 8,000 feet above sea-level, where it forms a depression which Prejevalsky considers to be the bed of an ancient lake—lesser Yulduz in the north and greater Yulduz in the south, divided by an unnamed range rising above the snow limit, the lesser Yulduz measuring 100 miles east and west by about twenty north and south. In ascending from Kulja, which stands about 2,000 feet only above sea-level, the traveller found the country improve as he ascended. At 4,000 feet

larch woods commence, and, on the banks of the Kunges, tall poplars, some eighty feet high and ten to fifteen feet in girth. In the Yulduz itself, the plain is covered with luxuriant herbage near the marginal mountains, and it is traversed by a river, the Yulduz-gol, flowing into Lake Balkash.

In crossing to the Tarim by a pass 9,000 feet in altitude,

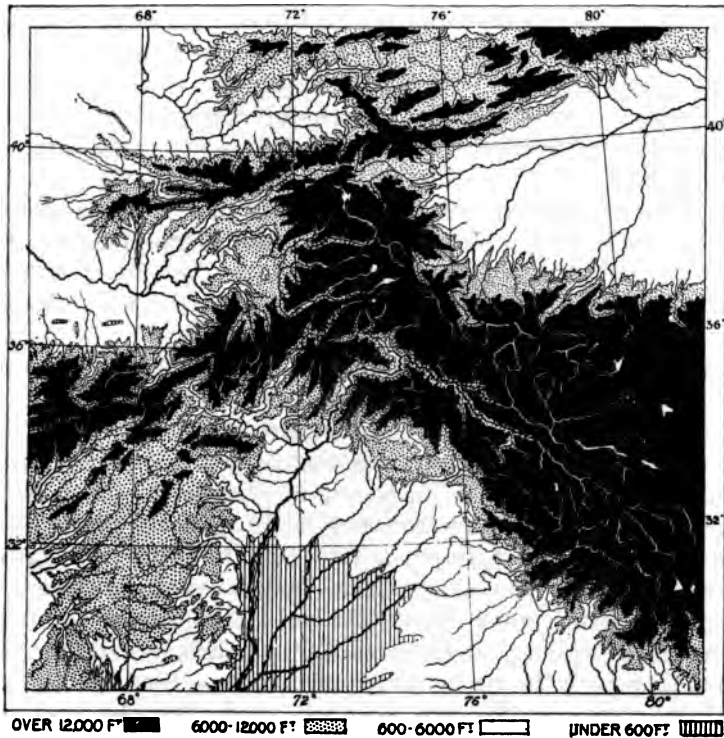


FIG. 27.—The Pamir and its offshoots: the Tarim basin to the north and the Indus valley in the south.

Prejevalsky found elms at 6,000 feet, but on the Tien-shan side 'the neighbouring desert has affixed the seal of death.' Rain is plentiful on the northern side, but the last drops are wrung out by the snow mountains of Yulduz and it is exceedingly probable that the whole southern slope of the Tien-shan is arid and barren!

Thus we see that the origin of the Tarim desert lies in its encircling mountains ; these arrest the rain-clouds on their outer slopes—the Kwenlun in the south and the Tien-shan in the north,—and allow none to reach the intervening basin, which is thus dependent, for the crumbs of moisture it receives, upon the few small snow-fed rivers that in summer flow into the plain from its surrounding barrier.

Marco Polo made his way to China through Persia and Badakshan, and thence across the Pamir and down the Yamunyar ravine, emerging into the Tarim depression at Yangi-hissar. This oasis is situated two days south of Kashgar, at which place the great traveller appears to have halted before continuing his journey east to China. From Kashgar he travelled via Yarkand and Khotan, skirting the southern edge of the Takla-makan desert, along the foot of the Kwenlun and Altyn-tagh to Cherchen and Lob, and so to the large oasis of Sha-chow; he probably avoided the easier northern route, via Aksu and Kuchar, under the southern slope of the Tien-shan—this being the common route to-day, as of old,—in consequence of the war then going on between the Khans Kublai and Kaidu in the neighbourhood of Urumtsi. The southern road, too, has apparently much deteriorated during the six centuries that have elapsed since Marco made the journey ; the liusha, or moving sands, have overwhelmed numerous oases that then made the route practicable. The two elder Polos, on their first visit to China, we know, travelled by the ‘ Tien-shan peh-lu,’ the road to the north of the Tien-shan, by Urumtsi (Bishbalik) and Hami (Polo’s ‘ Camul ’) to An-hsi, at which place the road taken on their second journey, when they took the young Marco with them,—that via Khotan and Cherchen,—unites with the north road ; the first road, via Dsungaria and the Ili valley, gives access to the plains of Western Turkestan by comparatively easy gradients and through a more fertile country, besides, by passing to the north, circumventing the desert mountain-mass of the Pamir. But, in the Middle Ages, man was often more to be dreaded than mountains, and, in the constantly disturbed condition of Central Asia, the choice of routes was largely affected by this consideration. Sha-chow (Sand City) is the point at which the Khotan-Lob road turns north to the junction at An-hsi. It is an oasis nearly

200 square miles in extent, and is one of the best oases of Central Asia and situated at the foot of the Altyn-tagh range, 3,700 feet above-sea level. Sha-chow was one of the original colonies established, B.C. 111, under the Han dynasty as an outlying defence against the Hiung-nu. It was re-established under the Tang, A.D. 622, and is to this day a flourishing place, not showing the decay that has overcome the other ancient cities of this region.

The Tarim basin is traversed from west to east by the Tarim river, whose course lies north of the centre and so nearer the Tien-shan range, the main body of the desert lying on its right bank between the river and the Kwenlun and Altyn-tagh ranges on the south. The rolling sand-dunes of the Takla-makan are here replaced by plains of clay, sand, and gravel, and we find along the left bank of the river a country still affording food for camels and so employed as the main route to the West. At An-hsi-chow, the city at which, as we have seen, the Tien-shan peh-lu turns north and leads through the province of Ili, we find another road branching off in the opposite direction and proceeding south to the Altyn-tagh by way of the oasis of Sha-chow; here the road turns west, skirting the mountain range until the region of Lob-nor is reached. From this point, rounding the southern edge of the lake, the road ascends the Cherchen river, an important affluent from the south that falls into the Tarim immediately above the point where the latter discharges into the lake, past the site of the ancient city of Cherchen, Marco Polo's Circian, and so up the slope of the basin to the oases at the foot of the Kwenlun, where the Cherchen-daria and its affluents emerge from the southern mountains. This southern road (not to be confounded with the 'Tien-shan nan-lu' or road south of the Tien-shan) proceeds west to Yarkand and Kashgar by way of Keria and Khotan and the many oases formed by the streams which descend from the snow-capped flanks of the Kwenlun; and thus the journey round the horseshoe is completed at a point where this road, turning north again, at last unites with the 'Tien-shan south road,' which runs along the north side of the basin. It was by this road, now little used, and at a time when the existence of many oases now smothered under the sand rendered the road less dangerous to man and

beast than it now is, that in the thirteenth century Marco Polo made his way to China, traversing Yarkand and Khotan, and he has left us a vivid description of the perils of the Lob-nor route. 'Lop,' he says (in Colonel Yule's translation), 'is a large town at the edge of the desert, which is called the desert of Lop, and is situated between east and north-east. It belongs to the Great Khan and the people worship Mahomet. Now such persons as propose to cross the desert take a week's rest in this town to refresh themselves and their cattle, and then they make ready for the journey, taking with them a month's supply for man and beast. On quitting the city they enter the desert. . . .' This once important city and recruiting place for caravans bound to China from the West is no longer to be found; six hundred years of the desert wind having sufficed to blot out all certain traces of its existence.

Prejevalsky tells of having discovered traces of three former cities on the shores of the Lob-nor, one of a very large city at a place called merely Kunia-shari, i.e. old town, and which Colonel Yule, in his edition of Marco Polo's *Travels*, identifies with Polo's Lop. Judging from the great mediaeval traveller's account above, one may infer that the route from Khotan and down the Cherchen-daria to the Lob-nor was far better watered 600 years ago than it is now, and that the greatest difficulties of the route to China commenced eastwards *after leaving the lake*. Certainly numerous cities then existed throughout the Tarim basin, of which no trace beyond a few mounds remains, nothing but an uninhabited desert being now left in their place.

The recent explorations of the Swedish traveller, Dr. Sven Hedin, in 1896, and of Dr. M. Aurel Stein (*Sand-buried Ruins of Khotan*, T. Fisher Unwin, London, 1903), of the Punjab University, in 1900-1, have demonstrated the fact that, in the first millennium of our era, numerous cities existed throughout the Tarim basin which have been as effectually hidden from our knowledge by the all-encroaching sands of the Takla-makan as was Pompeii during 1,500 years by the ashes of Vesuvius. The first European to direct attention to the possible archaeological value of the Takla-makan sands north of Khotan was the distinguished but ill-fated French traveller, M. Dutreil de Rhins, amongst whose papers were found fragments of birch-bark

leaves, covered with writing in early Indian script, which had been acquired by him in the vicinity of Khotan; while chance finds of ancient manuscripts in Sanscrit and mostly Buddhistic,—which commenced in 1890 with Captain (now Colonel) Bower's famous birch-bark leaves from Kucha,—were the first tangible proof that precious materials of this kind might still be preserved under the arid soil of Chinese Turkestan. Exploration has now unearthed from their cloak of sand in the numerous buried cities to the north and east of the Khotan oasis a mass of records written on wood and leather, mostly in Sanscrit and older than any document yet found in India itself, some going back as far as the third century of our era. Among the recent finds are numerous documents written in the Chinese language, and these fortunately give the exact dates (A.D. 781-90), from which Mr. Stein concludes that the cities containing them were abandoned in the eighth century, when they were enveloped in the moving sands of the dreaded Takla-makan. The process of desiccation must have advanced rapidly in these centuries and is apparently still going on. Many writers on China derive the origin of the Chinese people from the banks of the Tarim, and assume that the desiccation of the basin drove the ancestors of the Chinese six thousand years ago to migrate east to the fertile highlands of Kansu and the valleys of the Yellow River and the Wei. The ancient Chinese are described as a race of agriculturists coming from the West, who at first drove out but ultimately amalgamated with the wild aborigines of the country, a people living by the chase. And it would seem likely that these fore-runners of the Chinese worked out their agricultural experience in the oases of the Tarim—their practice of irrigation and their unparalleled garden system of farming. Those Sinologists who (and, we are inclined to think, with reason, especially where the more ancient characters of the classics are concerned) trace a definite meaning in the combinations of hieroglyphs that go to build up the Chinese written characters, are confirmed in this view by the fact that a favourite classical expression descriptive of the Chinese people as the 'Li min' may be translated as the 'race of ploughmen.' It is true that this character 'Li' is now interpreted by Chinese scholars to mean 'black-haired,' and so 'the black-haired race,' a meaning for which, however, the

character itself gives no warrant except in the sound, while in its composition it is hardly distinguishable from the character of the same sound now used for 'plough.' If we go farther and analyse the hieroglyph, we find it composed of grain, man, and millet or water, and thus highly suggestive of irrigated rice-fields; in the same way we find the aboriginal savages represented by man and bow. We are now describing the Tarim, and, in doing so, pointing out its interest as the onetime home of the Chinese; we need not go farther afield and speculate as to the cradle of the race having been in Accadia, but it looks as though the Chinese, who are themselves by no means profound archaeologists, in their continuous efforts during the past two centuries to conquer and hold Chinese Turkestan, were instinctively led to safeguard from alien domination not alone their one road to the West, but likewise the home of their early progenitors. Unlike their Tibetan possessions, which are a steady drain on the Szechuan treasury, Turkestan, since its reconquest by the Chinese, is a source of revenue, nominal though the sum it affords be. According to the *Imperial Gazetteer*, published at Peking, the rich oases of the 'New Dominion' furnish together an annual subvention of 5,000 tons of grain and 100 horses and camels (though this 'tribute' is doubtless mostly consumed on the spot in the maintenance of the imperial post-stations).

The wide expanse of Chinese Turkestan, half a million square miles in extent, is roughly credited with a population of one million souls only, the bulk of whom inhabit the western edge of the basin where we find the most flourishing cities and an appreciable area of cultivated land. Add to the above the area of Dsungaria with that of the fertile Ili valley and Kulja to the north, estimated at 150,000 square miles with a population of 350,000, and we have a total population in Chinese Turkestan of 1,350,000. The perennial streams that descend upon the western rim of the basin from the high Pamir plateau and the northern spurs of the Himalaya mountains supply the chief feeders of the Tarim—the Khotan, the Yarkand, the Kashgar, and the Aksu—and enable it to flow in a continuous, though steadily diminishing stream of fresh clear water across 600 miles of desert to its estuary in Lob-nor, the lake known under that name being now believed to comprise two sheets of shallow

marsh water, one in the north in latitude $40^{\circ} 30'$, the remains of the old salt lake, and one (Prejevalsky's fresh-water lake) sixty miles to the south. This latter appears to be kept fresh by the current of the Tarim through it, until at last its waters drain off to the north-east in a series of reed-covered salt marshes and to a lower shallow depression in the desert beyond. The Tarim, 600 miles from its mouth, is a river 400 feet wide and twenty in depth, flowing with a three-knot current. At the head of the affluents named above, and which enable it to maintain this volume of water while flowing 1,000 miles through a thirsty sand-waste, stand the cities of the same name, the oases in which they are situated being formed by the irrigation of as much of the surrounding desert area as the water can be made to supply; thus we find Yarkand and Kashgar, cities with populations as large as 30,000 and 50,000 respectively; but the latter city has already outgrown the capacity of its own oasis to feed it, and is dependent upon the former to supply the deficit. Maize, rice, wheat, barley, hemp, tobacco, and excellent fruits common to the temperate region grow luxuriantly in these favoured oases, but the area of supply is only equal to the wants of a limited stationary population, and to this fact may well be attributed the turbulent character of the people and the frequent wars that periodically devastate the country.

Although we have spoken of the 'Nan-lu' as leading up to a cul-de-sac, yet, as a matter of fact, we find Chinese Turkestan here connected with India by difficult passes across the Hindu-Kush, by which a limited amount of trade is carried on by caravans of pack-animals, yak and goat, during the short summer season; while from Kashgar, going north-west, a march of six days, via the Chadyr-kul and over a pass of 12,800 feet, leads to the frontier of Russian Turkestan. From the eastern extremity of the basin another road leads south from An-hsi across the Kwenlun into the Koko-nor and the Tsaidam, and so over the high Tibetan plateau on to Lhasa. The Kwenlun appears to be the true backbone of the continent in this direction, being of far older date than the Himalayas. 'The prevailing rocks are syenitic gneiss and more recent triassic formations, whereas in the southern range is comprised the whole series between the palaeozoic and eocene deposits. Hence

the Kwenlun rather than the Himalaya must be regarded as the eastern extension of the Hindu-Kush and the true backbone.'

The relations of China with Turkestan, from the glorious times of the great Han dynasty (B.C. 206 to A.D. 23), and our first Chinese accounts of the region, date from the days of Wuti, the Martial Emperor, B.C. 140 to 86, to whom the officer sent to subdue the region round Lob-nor reported: 'On the salt lake lie the unwallied places and towns of Leu-lan and Kushi.' The country was at this time under the dominion of the Hiung-nu, a tribe supposed to be of Turkish descent, whom the Chinese succeeded in driving out, thus becoming the masters of the Tarim basin, which they held for over two centuries, losing it again in the disorganization which preceded the break up of the 'Eastern Han' dynasty, commencing A.D. 25 and ending A.D. 220. We learn that Leu-lan contained 1,500 families. In later times the little kingdom was known as Shen-shen, a different sounding in Chinese hieroglyphs of the same root-word, which was probably Darshan; Yuni was the residence of the prince, and it is stated that 14,000 families and 3,000 troops were included in it. After the downfall of the Han dynasty we hear little more of the small state of Lob. Its only visitors who have left us any record of the region were occasional Buddhist pilgrims on their journey to India, and these, intent upon Buddhistic researches, have left us but scanty records of the geographical and political features of the period. In A.D. 399 the famous Buddhist pilgrim Fa-hien, and in the seventh century, during the Tang dynasty, the equally famous Hwen-tsang, travelled from China to India by this route. 'Many evil spirits,' he says, 'are there and burning sirocco winds (buran) which kill all who encounter them . . . the people are Buddhists, about 4,000 being priests.'

Notwithstanding the fact that the Chinese emperor, Taitzung, who succeeded the founder of the great Tang dynasty Taitsu in A.D. 627, proclaimed himself Khan of Tartary and succeeded for a time in subduing the tribes on the western frontier and in making himself the nominal ruler of Kashgaria, yet the annals of the Tang dynasty, which occupied the throne from A.D. 618 to A.D. 905, contain no notice of these countries subsequent to the year 750; from which time on, up to the advent of the Mongols in the thirteenth century, Chinese power to the west of the older

settled provinces seems to have died out altogether. The extraordinary rapidity with which the Mahometan religion spread over Central Asia, from the time (A.D. 676) that the then Arab governor of Khorasan set out on the conquest of Samarkand, may have been one of the causes of the ebb of information in the eighth century concerning the road leading past Lob-nor, for the road via Hami now came more and more into exclusive use; and the constant process of desiccation going on in the oases along the southern margin of the Tarim basin appears also to have diverted the traffic to the northern route. When Marco Polo traversed this, the Khotan, route in A.D. 1272, as we learn from his narrative, the country of Lob was a well-populated oasis at which travellers were accustomed to break their journey through the desert. It is not until we come to modern times, that, in consequence of the campaigns of the emperor Kanghi (1662-1723) and the great conquests of his successor, Kien-lung (1736-96), the attention of the Chinese was again directed to the west. In a work written in 1741 we find it stated that, forty years before, an army occupied two months in marching round the Lob-nor district, and that the people, as now, live on fish, and will neither eat bread nor meat because it disagrees with them. At this time (say in A.D. 1700), there were living there 2,160 people. A subsequent account written in 1758 states that the population had then fallen to 600! In 1877 Prejevalsky found the then population at the lake to consist of seventy families, comprising 300 souls in all.

The Chinese power was thus never consolidated in Turkestan until the middle of the eighteenth century, nor has it been uninterrupted since that time. Following on the Mahometan rebellion that broke out in Yunnan in 1855, and which it took the Chinese twenty years to suppress, Buzung Khan, a son of Jehangir—who, early in the century, had invaded Kashgaria from Khokand and had been acknowledged as Sultan until driven out by the Chinese under Tao-Kwang—again invaded the country, which, with the aid of his co-religionists on the spot and of his able lieutenant, Yakub Beg, he quickly succeeded in conquering. In 1867 Yakub took the rule into his own hands; a few years later he was assassinated, and the ensuing discord made it an easy matter for the Chinese under Tso Tsung-tang

to reconquer the country, which is now strongly garrisoned and ruled by a brigadier-general who has his head quarters in Kashgar. It seems strange that so unpromising a country as Eastern Turkestan, and separated from China by pathless deserts and from Western Turkestan by the lofty Pamir, should have proved a bone of contention to its neighbours from time immemorial; the signs of the times point to the coming exchange

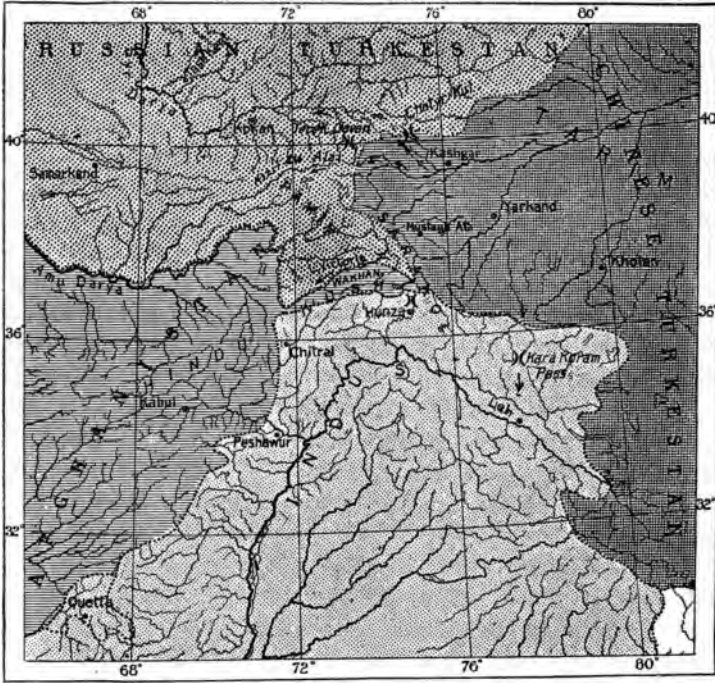


FIG. 28.—Chinese Turkestan. Political.

by the Moslems of Kashgar of the easy-going ascendancy of the Chinese for the inexorable rule of the Muscovite, when the phrase Chinese Turkestan will be again nothing more than a geographical expression.

We now turn due south from the depression of the Tarim basin, cross the backbone of Asia, the Kwenlun, and enter the great upland region of Tibet, a brief description of which forms the subject of the following chapter.

CHAPTER XIII

THE DEPENDENCIES : PART IV. TIBET

EURASIA, the greatest land mass on the globe, appropriately holds in its centre the loftiest table-land ; a table-land walled in by the highest mountains on the earth's surface, rendering it as difficult of access as it is inhospitable to live in. Yet its very inaccessibility has proved a great attraction to travellers, and to-day the character of the country, its chief orographical features, its climate and resources are familiar to all ; the blank spaces have been filled in step by step by a series of capable and adventurous travellers, until finally, in 1904, by the members of the mission dispatched by Lord Curzon to Lhasa, under Sir Frank Younghusband, the 'Forbidden City' has been once more visited by Europeans and so its mysteries have been unfolded to the outer world.

Tibet occupies an area of some 700,000 square miles, and latest travellers credit it with not more than 800,000 or possibly 1,000,000 inhabitants, making little more than one inhabitant to the square mile ; but seeing that six-sevenths of the country is uninhabitable and frequented only during the short summer by nomads on the northern border, who find, in a few of the more favoured spots of the high plateau, a scanty pasture for their flocks and an escape from the great heat and the insect plagues of the lower surrounding depressions, we may relegate some 700,000 inhabitants to the 70,000 square miles of the lower plateau, which should thus be credited with ten inhabitants to the square mile, a figure probably well within the mark.

For, in our estimate of Tibet, a marked distinction must be made between the high plateau, north of the Tangla mountains, and which ranges from 14,000 to 16,000 feet in elevation, and the lower plateau, bordering on India and China, with an elevation of from 10,000 to 12,000 feet only. The former is an absolutely

inhospitable waste of frozen stony desert, interspersed with bare steep mountain ridges, rising from 4,000 to 6,000 feet above the plateau itself, and salt lakes fed by the sparse snows on their summits ; while the lower plateau, receiving a moderate rainfall, contains rivers descending to the sea, often with small cultivable valley-bottoms along their banks. The altitude of 10,000 to 12,000 feet in a latitude of 28 to 30 degrees by no means implies a too rigorous climate, and, as a matter of fact, Chinese officials, who have been appointed to Lhasa, have described to me the climate of the residency as healthy and agreeable ; the surrounding country producing ample cereals, fruits, and vegetables for the needs of the few inhabitants, while the cold in winter is so modified by the strong sunshine and the shelter of the mountains of the high plateau to the north, that the climate is really less severe than on the Mongolian plateau to the north of Peking with an altitude of 4,000 to 5,000 feet only. The British mission who were at Lhasa in August and September describe the weather as good though rainy, and the climate, from April on, at Gyantse as charming. The Tsangpo river, which flows south of Lhasa, and is now identified as the upper stream of the Bramaputra, is seldom entirely frozen, and snow, though often piled up in the passes, rarely lies on the steppe-plain to a depth of over a few inches at a time. This fact, largely due to the dryness of the air, renders the underlying pasture easily accessible to the herds of yak, sheep, and ponies which go to make the wealth of the Tibetans, and renders winter travel possible without danger, except when crossing the higher passes on the border, while, as a residence, given comfortable quarters, no better sanatorium for debilitated residents in the peripheral lowlands could be desired, and that during all four seasons of the year. It goes without saying that ' comfortable quarters ' are not to be found in Tibet ; to-day, the hardy Tibetan has not even introduced the Chinese ' kang,' or stove-divan, charcoal and argol braziers supplying all the artificial warmth needed ; but with the coming promised opening of the country to foreign trade, amenities of civilized life will follow. The common conception of Tibet for many years has been derived from travellers' reports descriptive of the horrors of the high plateau : the habitable lower

plateau has been a sealed book since the missionaries Huc and Gabet passed through Lhasa more than fifty years ago, until the year 1904, perhaps the most important date in the history of Tibet.

Tibet extends east from the border of Ladak and Kashmir, on the western side of the plateau, to the Chinese province of Szechuan in the east, a distance of 1,100 miles, and from the Kwenlun mountains in the north, which separate it from Kashgaria and the Tarim basin, to the crests of the Himalayas in the south, where these great southern ramparts of the plateau divide it from the contiguous Indian buffer states, Nepal, Sikkim, and Bhutan, for a distance of about 600 miles. A fringe along the southern border of this wide expanse, with a curve east and by north as the Chinese frontier is approached, limits the inhabitable region, of which Lhasa is the capital, Gyangtse and Shigatse the two most important places, and Batang and Litang two considerable towns on the road thither from China. The two districts of which these latter towns form the administrative centres, though belonging geographically to Tibet and still administered by Tibetan 'Tu-sze' or governors, under the supervision of the Chinese Viceroy at Chengtu, are now set down in the more recent maps as an integral portion of the province of Szechuan. Much of this country is rolling plateau covered with rich grasses, part bare gravelly steppe—the lower slopes of ravines cut by water-courses deep down in this steppe afford space for small crops of barley and vegetables; the mountain ridges that cross this lower plateau, at an elevation above it of generally 2,000 to 3,000 feet, are mostly composed of bare rock with a few dwarf pine and stunted poplar in the crevices; in coming from China via Tarchendo (Tachienlu) two such ridges have to be crossed before the banks of the Yangtse, here known to the Chinese as the Kinsha or River of Golden Sand and to the Tibetans as the Murui-ussu (Winding Water), are reached at Batang. Twenty miles west of Batang we quit the land under Chinese rule and enter that directly under Lhasa; the boundary line runs along the crest of the range that walls in the valley of the Kinsha on its right bank and crosses the frontier of Lhasa-dé, the territory under the direct rule of the Dalai Lama and from which the Western barbarian has been successfully

excluded by the jealous Lama priesthood for the period from 1846 to 1904.

The route by which the British mission in 1904 advanced on Lhasa will undoubtedly, should the Tibetans carry out their agreements, become the main trade route into Tibet. Passing through the protected native state of Sikkim, this road, which has been much improved of late, crosses the Na-thu La (pass) and descends into the Chumbi valley, which is one of the richest valleys in the Himalayas. Its waters drain through Bhutan into the plains of India, and although the higher portion near Phari Dzong is barren and unproductive, we find the lower portion well cultivated and wooded. This valley is, geographically speaking, no part of Tibet, as it lies on the southern side of the Himalayas—a wedge thrust in between Bhutan and Sikkim. No difficulty presents itself in crossing the water-shed by the Tang La, a broad easy pass, 15,200 feet in height, lying between the two great snow-peaks Powhunri and Chumolarhi. The road then descends into broad open plains, past the two lakes, Bam Tso and Kala Tso, and thence through a narrow gorge leading to Gyangtse. Here a side route follows the Nyang Chu valley to Shigatse, famous for its large monastery the Tashi Lhumpo, as well as for its prosperous town. Here resides the Tashi Lama, who divides with the Dalai Lama of Lhasa the religious supremacy of Tibet. From Gyangtse the road to Lhasa leads over the Karo La, an easy pass with snows on either side, round the borders of the Yam-dok Tso, the horseshoe lake to which so much romance attaches, over a low pass and down to the bed of the Tsangpo. After crossing the river a level road leads up the Kyi Chu valley to Lhasa. A glance at the map will show what a short and easy route this is. The valleys of Lhasa, the Tsangpo and that running from Gyangtse to Shigatse, are all well cultivated and thickly populated, the inhabitants suffering from none of those hardships which their less fortunate comrades in the uplands have to endure.

Lhasa itself, besides being the capital, is the largest town in Tibet. The population is probably about 20,000, exclusive of the three great monasteries, Debung, Sera, and Garden, which lie outside the town and contain some 18,000 monks. The

most prominent points are the Potala, the residence of the Dalai Lama, a massive building on a conspicuous steep-sided hill, and the Chagpori, or medical hall, on another eminence, both lying to the west of the town. The To Kang, or cathedral, is situated in the town itself, which, together with the Potala and Chagpori, is encircled by the pilgrims' road, or Ling-kor, some five miles in length.

The government of Lhasa which rules Tibet has three heads, the actual ruler being that man who at the time is the strongest. The Chinese Amban represents the Emperor of China, but his influence has fallen off during the later effete reigns and is now practically nil, the real government being at different times held by the Dalai Lama or the Regent, according as either succeeds in gaining the upper hand. It seems to have been the custom to kill off the Dalai Lama as he reached manhood, so that a baby might be put in his place and power remain with the Regent, but the present Dalai Lama, the thirteenth reincarnation of Padma Pani, has proved himself stronger than his predecessors and so has reversed the situation. Next in importance come the four Shar-pes, who, with the Song-du or national assembly, also exercise great influence, especially in foreign affairs.

The easiest road by which to enter Tibet from the east is that over which the traffic with China passes and that by which Chinese armies have repeatedly invaded and conquered the country, and along which Chinese military posts are established to-day; that is, the great road from Chengtu, the capital of the province of Szechuan, which leads through Tarchendo¹, Litang, and Batang to Lhasa; this road, after crossing the Min river at Kiating, leads up the valley of the Ya to the Chinese prefectural city of Yachow. In the beautiful Yachow valley is grown the shrub which provides the Tibetans with one of their chief necessities of life—tea—which is here pressed into bricks and carried by toiling coolies over three mountain passes, up to 10,000 feet in height,

¹ Tarchendo is the Tibetan name, meaning 'junction of the Tar and Chen rivers,' which unite at this town. The Chinese write the *sound* with the three characters, Ta-chien-lu (needlessly translated in Gill's *River of Golden Sand* as 'Great Arrow Forge').

to Tarchendo. Yachow lies at the foot of the Siang-ling, an outwork of the high Tibetan barrier, over which leads the first of these three passes. The Siang-ling or Elephant range (so named in memory of Pu-hien, who carried the sacred books of Buddha from India to China over this pass on the back of an elephant ¹) forms the first of the mountain barriers that separate China from Tibet, and which, up to the time of Kien-lung's conquests in the eighteenth century, formed the political barrier as well. Crossing two more passes in the barrier ranges, the road traverses the swift-flowing Tatung river by the famous suspension bridge of Lu-ting Chiao (Kiaking, 1796-1821), built in Taokwang's reign (1821-51), and enters the Ta-hsueh-shan, the Snow range ², the great girdling rampart of the Tibetan table-land, by the ravine of Wa-sze-kou (tiled roof monastery), down which flows the impetuous river of Tarchendo, which here discharges into the Tatung after falling 3,000 feet in a distance of twenty miles. The building of the bridge at Lu-ting greatly facilitated the intercourse between China and Tibet, the Tatung river being otherwise impassable in the rainy season, which prevails from May to October and is here very pronounced; while in winter, when the rivers are ferryable, the passes beyond are closed by snow. The rain-clouds from the China Sea are driven by the south-west monsoon against the flanks of the snow range that lines the right bank of the Tatung, and, rising up them, are there relieved of their moisture, leaving little or nothing for the thirsty table-land beyond. The heavy precipitation of this region, coupled with the fact that, from Lu-ting Chiao to its mouth in the Min at Kiating, the Tatung river, here a stream 100 yards wide and six to ten feet deep, falls 3,000 feet in about 100 miles, sufficiently accounts for there being neither ford nor ferry across it from below the mouth of its

¹ Pu-hien's statue, with that of his colossal elephant, cast in bronze, now adorns one of the many temples on Mount Omi (a sacred mountain, 11,000 feet high, situated in the angle of the Ya and Tatung rivers, near Kiating).—Vide author's *Mount Omi and Beyond*, Heinemann, London, 1899.

² The high range that walls in the Tibetan plateau from China, a north-eastern prolongation of the great range of the Himalayas, that does the same service for India, is so far unnamed in our maps. It might be well to call it by the Chinese name, Ta-hsueh-shan, 'Great Snow Mountains,' identical in meaning to the name given by the Hindus to the Himalayas, 'Abode of Snow.'

copious tributary the Tarchendo at Wa-sze-kou until it quits the Tibetan border fifty miles lower down. Here, at a place called Kin-ho-kou, it unites with the Kin river, and, changing its course from south to east, forms the northern frontier of the independent Lolo country, that extends hence to the banks of the Kinsha river in the south. The 'Snow range' is practically, by way of many intervening folds to the north of Assam and the Burmese 'Kachin' country, a north-eastern extension of the Himalayas curving round north of Burma and then trending north-east and so forming the western and northern barrier of the Szechuan lowlands up to the borders of Shensi. This glacier-bearing range, where it runs north, with the foot of its precipitous eastern slope washed in the swift-flowing Tatung river, averages some 20,000 feet in height; 15,000 feet being about the level of the snow-line in this latitude, and Gill gives 22,000 feet as the height of the peaks of the 'Nine-nails range,' which shuts off the Chengtu plateau on its north-western side from the upper valley of the Min and the Tibetan table-land north of Sungpan. Shortly after crossing the Lu-ting bridge, the road ascends the Wa-sze-kou ravine through the narrow cleft of the Tarchendo ravine to the town of that name, situated 8,400 feet above the sea. Tarchendo is the great frontier mart of Tibetan trade with China, is a busy populous place, a walled city, and the seat of the native 'Wang,' or prince (called Tu-sze), who, under the surveillance of a Chinese Taotai, rules the Tibetan population of the town and district. Here the Chinese porters deposit their heavy loads, which are then repacked on to the backs of the Tibetan yak, and so carried across the Thamo and Gila passes to Batang and Lhasa. A large barter trade is carried on in skins, musk, wool, and gold from Tibet, and in tea, cotton-cloth, and 'notions' from China, many of the most important Szechuan mercantile firms possessing branch honggs in Tarchendo. A few Manchester goods also find their way to and are on sale in the Chinese shops, but the poor Tibetan is fully clad, winter and summer, in a sheepskin robe (pushtu), yak-skin boots, and a fur cap, and has little money and still less inclination for the luxury of clean linen (literally, cotton), such as his more civilized Chinese neighbour delights in; what money he does manage to accumulate is invested in jewellery for the

women, many of whom are well groomed and smartly dressed, and to whose hands all business is entrusted. The city of Tarchendo is situated at the junction of two narrow valleys hedged in by steep mountains running up into the snow-line ; westward the road leaves the ravine and leads by an easy ascent to the comparatively arid table-land, 4,000 feet above the town. These valleys are well watered by the two torrential streams, the Tar and Chen, which unite above the town, and flow through it. The opening in the mountains has left space for about one hundred acres of level ground outside the city, carefully tilled by Chinese settlers and producing good crops of maize and vegetables. The surrounding mountains are covered with impenetrable scrub, and are reported by the Chinese to be rich in minerals, formerly worked in petty painstaking Chinese fashion ; but all mines are now closed by order of the officials, partly from the fear of their collecting disorderly crowds, and partly from fear that prospectors from the West might otherwise discover their value and claim to exploit them.

Other roads lead over passes, mostly practicable only in the short summer season, through the Himalayas to India ; but these have lost their importance since the adoption of late years of a policy of exclusion by the Tibetan Lamas and their Chinese overlords, and in any case cannot compete with the route already described via the Chumbi valley. Tibetans cross the frontier at Ladak by way of the Karakorum, and thus a limited barter trade is carried on at Leh, a small British outpost not far from the spot 'where three empires meet.'

Next in importance to the great high-road via Tarchendo is, however, that from the north, which communicates with Mongolia and North China by way of Koko-nor and Sining ; caravans of traders and Mongol pilgrims pass annually by this route to Lhasa, but endure much privation and no small risk in crossing the arid high plateau and the lofty barren mountain ranges that guard the sacred Tibetan capital on its northern side. This road starts from the city of Sining (7,400 feet) in Western Kansu, leaves the famous Lama monastery of Gumbum on the left hand and goes west fifty miles to Donkyr (11,300 feet), the frontier town on the border of Kansu province, through which the road passes into Tibet, the eastern extremity of Lake

Koko-nor being a day's journey distant. Hence the road passes south of the lake, and so on over a series of high passes to Lhasa, which is reached in fifty-four days from Sining. This road turns the flank of the Nan-shan by way of the valley of the Yellow River, near whose sources in the 'Starry Sea' to the west of the Charing-nor, it afterwards passes on its way south.

The itinerary from Sining to Lhasa comprises, first, two days to Donkyr, where the border of Kansu is reached, thence fifteen days across the Tsaidam and the valley of the Bayan-gol, a river flowing out of the lake Toso-nor, and thence 200 miles in a north-westerly course to its mouth in the salt lakes and marshes of the Western Tsaidam. At the point where the track crosses the river, midway between its source and its mouth, Prejevalsky found a rapid stream 1,600 feet wide and three feet deep, giving evidence—unlike the high Tibetan plateau—of a fair amount of atmospheric precipitation in the joint basins of the Koko-nor and Tsaidam, and consequent favourable pastoral resources for the nomads frequenting these two depressions of 11,000 and 9,000 feet respectively above sea-level. Thence the road leads to the pass (16,500 feet) over the Burkhan-Bota (Lord Buddha) mountains, thence ten days across a small dry plateau, at a level of only 2,000 to 3,000 feet below that of the bordering ranges to the pass over the Shuga range and the plateau which gives rise to the Shuga river, a stream that makes its way north round the western extremity of the Shuga mountains to debouch into one of the small salt lakes of the Tsaidam. Crossing another spur of the range which limits the Shuga plateau on the south by a pass (14,400 feet), the road comes down on the plain of Odontala, famous as holding within its limits the sources of the Yellow River, while on the other side of the mountains (the Baian-kara-ula) that bound the plain on the south are the sources of the great Yangtse. The Yellow River here has its source in the springs of the 'Starry Sea,' the Sing-su-hai of the Chinese, whence it flows into the large lake Charing-nor, situated 14,000 feet above sea-level; thence, by a connecting channel a couple of miles wide, which unites the two lakes, into the smaller lake Oring-nor; from this point the stream flows east until it reaches the eastern extremity of the Burkhan-Bota, when it turns sharp to the north and, after traversing the eastern

edge of the Koko-nor plateau, enters Kansu south of Sining. The road to Lhasa now leaves the Odontala plateau and crosses the third chain, seventy miles to the south of the Shuga, by a pass 15,900 feet in height and descends into the plateau in which are found the head-waters of the Yangtse, or Murui-ussu, here flowing at an elevation of 13,000 feet above sea-level, and 200 miles east of its farthest source in the recesses of the Kwen-lun to the north-west; hence, by a five days' march the road leads over the Tang La, the range dividing the high plateau of Tibet from the lower and less unfriendly southern plateau, along which flows the Tsangpo, between the Tang La and the northern slopes of the Himalaya, to enter Assam, through an as yet unexplored gap in the latter, as the Bramaputra. On the hither side of the Tang La stands the Tibetan village of Napchu, whence Lhasa, the capital, is reached in a comparatively easy march of 12 days. The Tang La, with the parallel ranges to the south, protects Lhasa on the north and contributes, in addition to the lower elevation of about 11,000 feet only, to the relative mildness of the climate by which Lhasa-dé, or Tibet proper, is distinguished. Lhasa, it must be remembered, is in latitude 29°, the same as that of New Orleans and Cairo.

It may be well here to survey the route just described and so endeavour to obtain a clear conception of the leading features of the plateau as viewed from the side of China. We find then that the Nan-shan, together with the Altyn-tagh and the Kwen-lun, of which it forms the eastern prolongation, divide the depression of Turkestan from the table-land of Tibet, forming a wall-like boundary on their northern slopes, while their southern slopes merge more gradually into the high plateau; then passing south across the range, we come to the relative depression which has the great salt lake of Koko-nor, 10,700 feet high, for its centre, and the depression of the Tsaidam, the bed of another great lake which once filled the area of the present morass, which is situated 1,700 feet lower than the level of the Koko-nor. It seems to be a moot point whether these depressions or plateaux, according to the point of view as we regard them from the north or from the south, should be mapped accordingly as belonging either to Mongolia or to Tibet; for the Koko-nor and Tsaidam plateaux communicate, through a gap in the high mountains to

the north, directly with the Western Gobi, while they are walled off from the higher great plateau and closed basins in the south by a triple rampart of lofty mountains before Tibet proper is entered in this direction. This triple rampart of mountains may be regarded as consisting of parallel folds of the great Kwenlun system¹, much as we regard the mountain masses north of the Tarim basin as parallel folds of the Tien-shan system; the folds of both systems running generally in a west-east direction, and sending off an increasing number of offshoots as they spread east, until they ultimately sink to the lower levels of the surrounding country; the Tien-shan into the plateau of Mongolia, the Kwenlun into the less formidable ranges that mark the dividing line between Northern and Middle China, separating the Yellow River basin from that of the Yangtse;

¹ The Kwenlun is now regarded by geologists as the true backbone of Asia, the composition of its rocks showing it to be an older formation than the Himalayas and so of earlier elevation. Captain Deasy made an interesting discovery in Sarikol, east of the Kiria river (to the south of Yarkand), of fossil seaweed lying at a height of 16,500 feet above sea-level, which he thus describes: 'a deep stratum, over twelve feet in depth, of dry water-plants, *Zostera marina*, Linn., the Grasswrack, a marine flowering plant, widely distributed on temperate coasts; its slender, ribbon-like green leaves are a common object on our shores.' *Glaux maritima*, Linn., and *Triglochin maritimum*, Linn. (both in Captain Deasy's list), are similar examples of maritime plants with a north temperate distribution occurring at high altitudes in Central Asia. Their presence may be explained by a former connexion with the Mediterranean basin, indicated by the band of tertiary marine deposits stretching eastwards from the Alps to the Himalayas and occurring at Leh at a height of 21,000 feet.—'As to the age of the deposits of *Zostera* and blue shaly clay, it is impossible to hazard a guess; from their appearance these plants remains ought to be only a few years old: beyond being very dry and dusty and broken they show no alteration, and the internal structure is perfectly well preserved. The intermittent occurrence of layers of blue clay points to repeated changes in level in the salt lake in which the plants were presumably growing.' Mr. Kingsmill remarks upon this discovery: 'There is geologically no difficulty in either view of the mode of occurrence of the *Zostera*, whether as fossil in the rocks, or as sub-fossil in recent lake accumulations. If fossil, the remains point directly to the existence of comparatively late tertiary formations in Tibet situated now 16,000 feet above the sea-level: if the remains are recent (geologically) they indicate the survival of tertiary marine forms. A more curious instance occurs in Lake Tanganyika in East Africa, where remains of a mezoic marine fauna still survive, though the lake is still fresh. There are abundant evidences elsewhere of the comparatively late, post-eocene, elevation of the Himalayas. As a geological fact the *higher* a range of mountains is, the greater is the likelihood of its youth. The natural tendency of a great mountain mass is to sink, owing to the compression of its base, &c.

both ranges having, so to say, their sources in the great central nexus of the Pamirs. These three rampart ranges are, beginning from the Tsaidam and proceeding south, the Burkhan-Bota, now generally accepted as the northern limit of the true Tibetan plateau, a range running 130 miles east and west (Prejevalsky), rising 7,500 feet above the Tsaidam to a height of 16,300 feet with a plateau 13,000 to 15,000 feet high along its southern border; the lowest elevation yet found in crossing Northern Tibet being 11,300 feet. The next range is that of the Shuga, which is crossed by a pass 15,500 feet high; and the third chain, the Baian-kara-ula ('Precious Black range'), which runs 450 miles east and west, having the upper waters of the Murui-ussu (Tangutan, Di-chu) or Kinsha flowing past its southern slope. In the parallel valleys of these chains rise the four great rivers of Eastern Tibet—the Salwin, the Mékong, the Kinsha (Yangtse), and the Yalung—all rivers which, starting on an easterly course, eventually turn due south, following the folds of the innumerable parallel ranges which run north and south along the eastern border of the plateau, a distinct mountain system which would appear to unite the eastern extension of the Himalayas in the south with the like extension of the Kwenlun in the north. This independent system, which has no aggregate name beyond that of the Chinese 'Ta-hsueh-shan' or 'Great Snow range,' is remarkable in that, in contradistinction to the prevailing contour of the mountain ranges of the Eurasian continent of which the folds tend generally east and west, its folds run almost due north and south, through 10° of latitude, from the northern frontier of Burmah and the Yunnan plateau in the south (latitude 24°) till they meet the Kwenlun, in latitude 34°, in the north. This range is composed mainly of crystalline rocks and is highly mineralized throughout; gold, silver, copper, lead, and quicksilver being (mostly surreptitiously) mined by enterprising Chinese immigrants in innumerable spots in the wild border districts which are under the rule of aboriginal chiefs (Tu-sze) subject to the Szechuan and Yun-kwei Viceroy. No statistics are obtainable of the output, but in the aggregate the yield must be considerable, notwithstanding the primitive methods employed; and, when the time comes for this remote region to be rendered accessible by roads and railways, then this borderland

of Tibet, Szechuan, and Yunnan will be proved another Colorado in its mineral wealth and in its attractiveness to competent prospectors and resultant mining companies to develop its resources.

On the western side the boundary is more complex; the mountains are higher and more difficult of access, and the plateau itself more elevated and more barren, being, unlike the eastern plateau, entirely cut off from the sea, and so a region of basins absolutely enclosed, with rare intermittent rivulets descending from the successive ranges of barren mountains that traverse the plateau in all directions, discharging into a series of bitter salt lakes, some reduced by evaporation to a simple expanse of salt. These mountains that render the high plateau far more difficult of access on its western than on its eastern side, are the Karakorum and the north-western spurs of the Himalayas; so difficult is the track over the passes—16,000 to 18,000 feet in height—by which Tibet is approachable from the side of Kashmir, that the few journeys attempted in that direction, and then only in the best season, are almost invariably attended by loss of life to man and beast, whereas to visit Tibet from the side of China involves no risk and little serious difficulty whatever; the effeminate Chinese officials, and the opium-smoking military commanders sent to defend Tibet from 'foreign' aggression, riding the whole way from Chengtu to Lhasa in sedan-chairs. The approach from Khotan in Chinese Turkestan lies over the barely practicable passes of the Kwenlun, and, in fact, there is no intercourse between the two countries in this direction.

Tibet, apart from its elevation, its rigorous climate, its inaccessibility, is chiefly remarkable as being, together with Mongolia, the home and centre of that peculiar form of the Buddhist religion known as Lamaism. The earliest records we have of the country are derived from Buddhist sources, and, while the inhabitants of the country, the present Tibetans, belong undoubtedly to the Mongol family, showing their affinity in dress, language, features and habits of life, they do not appear ever to have adopted Shamaism, the original religion of the Mongols, which is still prevalent with certain tribes in Mongolia, but have ever remained pure Buddhists of the strictest kind; they enjoy indeed the distinction of being the sole adherents of that faith

who really show fanaticism, almost rivalling in this respect the fanatical adherents of Mahomet; while their progenitors in Mongolia, though accepting Lama rule, but infected probably by closer intercourse with the indifferentism of their Chinese neighbours, have exhibited the easy-going tolerance characteristic of Buddhism generally, and have allowed Christian missionaries to settle and teach in their midst without remonstrance. We learn from Buddhist records (Hannah, *A Brief History of Central Asia*, T. Fisher Unwin, 1900), that, while the southern church was spreading Buddhism through the tropical regions of Asia, the same faith was being propagated in Central and Northern Asia by the northern church, and that, in Tibet, the tribes were first brought under one government by a chief named Seger about B.C. 310, and that Buddhism was introduced during his reign. Lhasa, the present capital of Tibet and seat of the ruling high-priest, the Dalai Lama, was founded by the then 'Wang' or King of Tibet, A.D. 630, but the Potala was not built, at least in its present form, until the seventeenth century. The most ancient monument in Lhasa is the Doring, —the stone pillar on which is recorded the treaty of A.D. 783 between the Chinese and the Tibetans. Two hundred and fifty years prior to this, the present Tibetan alphabet, derived from the Sanscrit, was introduced. According to its own annals, the early kings of Tibet were Hindu, but we learn little definite about Tibet until the time of the all-embracing Genghis Khan (A.D. 1206-29), and of his successor on the throne of China, the great Kublai (A.D. 1280-95); the latter appointed his nephew, Phagspa, a Lama, to be temporal ruler of the whole country; but Lamaism, in the shape of the Dalai Lama's divine rule, was not finally accepted by the Buddhists throughout Tibet, Turkestan, and Mongolia until the seventeenth century, under the powerful support of the great emperor Kanghi. 'Lamaism, the form of Buddhism now prevalent over Tibet and Mongolia, was developed chiefly by the growing power of the priesthood, and it is a system entirely antagonistic to primitive Buddhism, the theory of the successive incarnations of Buddha, which is a dogma of Lamaism, being the chief point in which the competing faiths differ.' In Chinese history from the Tang dynasty (A.D. 611-905) down, we read of

constant frontier fighting between the Szechuan Viceroy and the border tribes of the Ch'iang, as the land of Bod (Tibetan, Bod-ul) is called by the Chinese, but subsequent to the period of the Mongols (A.D. 1206-1341), no serious attempt to reconquer the country appears to have been made until the reign of Kanghi (A.D. 1662-1723), the warlike emperor of the present Manchu dynasty, who drove out the Kalmucks and set Chinese officials to control the Lamas in Lhasa. Under the reign of his successor, Kien-lung (A.D. 1736-96) the Lamas rose and massacred all the Chinese resident in the country, but Kien-lung, a conqueror no less energetic than his predecessor, sent an army to restore his authority, and, at the same time, he expelled from Lhasa a mission of Capuchin monks, who had succeeded in establishing themselves in the capital. The armies of this same emperor drove the Gurkhas out of Tibet, crossing the Himalayas and pursuing them to their capital, Khatmandu, where peace was established on condition that Nepaul should henceforth pay tribute to China; this remarkable instance of Chinese prowess took place as recently as 1792. Since that date, Chinese supremacy has been undisputed in Tibet; Chinese garrisons line the main road from Chengtu to Lhasa and a Chinese resident, called by Europeans 'Amban,' is supposed to direct the policy of the Lamas, but, as a matter of fact, the Chinese power is little more than nominal, and their supremacy entails a financial burden which has to be met annually out of the revenues of the province of Szechuan. In the conservative policy which would exclude all foreign intercourse, the Chinese are naturally at one with the Lamas, while the exclusiveness of these latter is due as much to fears of the destruction of their commercial monopoly as to fears of interference with their religious convictions. One-third of the male population is said to live in the huge lamaseras, picturesque monasteries containing each hundreds, sometimes thousands, of monks, with which the mountain sides are dotted; while the lay population seem to spend the greater part of their time in religious exercises and unceasing repetitions of the phrase 'Om mani padmi um,' 'The jewel in the lotus,' i.e. Buddha. Prayer cylinders turned by the current of the numerous streams maintain the circulation of the mystic phrase, while flags covered with the same words fly from every house.

In short, Tibet is the most superstitiously religious country in the world, and its people are correspondingly poor and ignorant. Another attempt has now been made to open up trade communication between Tibet and India. Warren Hastings originally accomplished the task, and for some years a limited trade, by way of Sikkim, was carried on between the two countries, but subsequent Viceroy's failed to keep the door open ; it remains to be seen whether Lord Curzon will be more successful. It is certainly to be hoped that the treaty signed at the Potala in September, 1904, will inaugurate a new era in our relations with the Tibetans, and that a wide extension of friendly relations, commercial as well as political, will result. The much-oppressed Tibetan people may come at last to enjoy the benefits of civilization, while, if the ruling theocracy can be persuaded to loyally carry out their obligations, a relatively important trade, via the Chumbi valley, with British India is assured in the near future, as well as a sensible increase in the small trade now existing in Western Tibet. Wool and pushm (the short silken hair of the goat) are likely to form important articles of export, while the tea-planters of Darjiling have only to adapt their produce to the taste of the Tibetans to find a practically inexhaustible market at their doors. It has always been an anomaly that a vast region like Tibet should remain a sealed country to the rest of the world, and persist in shutting its door to trade and intercourse with its neighbours—an anomaly dangerous to the peace of nations, and which, it is to be hoped, has, thanks to the tardy but, at last, energetic resolution of our Indian Government, been now removed for all time to come.

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CHAPTER XIV

WHILOM DEPENDENCIES : PART I. INDO-CHINA

WHILE the empire of China, or rather the Central Flowery Land, as the Chinese designate the eighteen provinces of China proper, is surrounded on the north and west by the dependencies surveyed in the preceding chapters, and on the east by the sea, the southern frontier is coterminous with Indo-China. Tongking in ancient times formed, with the present 'Kwang' provinces—Kwangsi and Canton, the kingdom of Yueh, which was conquered under the martial Han dynasty in the second century B.C. The hold of the Chinese was intermittent, however, from the time of the break-up of the Han until comparatively recent times, when the country was definitely reconquered under the reign of Yunglo, the third emperor of the Ming dynasty, A.D. 1403-25; but subsequent emperors contented themselves with the acknowledgement of Chinese suzerainty and the sending of an annual tribute. Meanwhile, the Annamese had adopted Chinese civilization and had organized the government on the Chinese model, with officials selected by competitive examination in the Chinese classics, Confucianism having long previously been adopted as the national cult. In the eighteenth century Roman Catholic missions were established in the country, quarrels ensued, resulting ultimately in annexation, first of Lower Cochin-China in 1859-63, and lastly of Tongking, after an inglorious war with China, in 1884; and thus the present French empire of Indo-China became an established fact.

Indo-China is the easternmost of the peripheral peninsular countries dependent from the central Asian plateau which project into the Indian Ocean and the China Sea: these being, in the order from west to east, Hindustan, the Malay peninsula, and the Siam-Annamese, of which latter Indo-China

forms the eastern half. This region, under French rule, comprises Cambodia and Cochin-China in the south, Annam in the centre, and Tongking (with the Laos country) in the north, the whole covering an area of 260,000 square miles, an area one-fourth greater than that of France in Europe, and extending north and south through fifteen degrees of latitude, 1,200 miles, following round the S-shape of the three united districts, with a width, east and west, varying from 100 miles across the narrow waist of Annam in the centre, to 375 miles across the provinces of Tongking and Laos in the north. The whole area lies within the tropics, but the northern portion, being subject to the influence of monsoons, enjoys a comparatively cool winter climate, and thus produces, in addition to those usually found in the tropics, many fruits and crops common to the sub-tropical regions of China proper. The configuration of the country is peculiar: two deltas, that of the Red River in the north, and that of the Mékong in the south, 800 miles apart, are united by an isthmus of mountainous country, the long, narrow coast-range of Annam: these three natural divisions are known as Cochin-China (including Cambodia) in the south, as Annam in the centre, and as Tongking in the north: the Laos territory, a wild, mountainous region only partially explored and very thinly peopled, lying along the southern frontier of Yunnan, between Tongking and Burma, completes the territory entitled by its alien conquerors Indo-China.

The country has been so short a time under French rule that no proper census has yet been taken, and so nothing better than an estimate can be given of the number of the inhabitants. Cochin-China with Laos are the only districts under direct French administration and of which a reliable census has been taken; Cambodia, Annam, and Tongking being (according to the treaties determining their acquirement) simply protectorates. Hence a great divergence of views as to the actual population amongst French writers on the subject. We quote two extreme estimates published respectively in 1901 and 1902: the question is of special interest in view of the varied estimates put forth of the population of China.

	<i>Area in square miles.</i>	<i>Population, Bernard (1901).</i>	<i>Population, Beauclerc (1900).</i>
Cochin-China	21,200	2,300,000	2,100,000
Cambodia	38,460	1,200,000	1,000,000
Annam	50,000	3,000,000	6,200,000
Tongking	42,330	2,700,000	6,800,000
Laos	109,510	500,000	2,400,000
	<u>261,500</u>	<u>9,700,000</u>	<u>18,500,000</u>

Seeing that in the more sanguine estimate the pathless mountains of the Laos are credited with a population of 2,400,000, and that this can only be a pure guess, we are inclined to think that the more conservative estimate is nearer the truth. Captain Fernand Bernard, who goes into a detailed argument to prove the exaggeration in the usual estimates of the population of Tongking, points out that the mountains are practically uninhabited, and that the populous region is confined to the deltas of the Red River and the Tai-bin (i. e. Song-ma river), a quadrilateral of 5,200 square miles only, and that, if we allow 450 inhabitants per square mile, this gives us a total of 2,340,000, leaving 360,000 for the uncultivated mountain region. A comparison with other similar regions is instructive and would seem to show that even Captain Bernard's conservative estimate is, if anything, beyond the mark. Thus we have:—

Bengal (including Calcutta, 500,000)	381 inhabitants per sq. mile
Province of Mytho (in the Cochin-China rice-delta)	346	"	"
" " Sadec	"	"	220
France	174
Belgium	450

Alone in Cochin-China are the statistics the product of a methodical census: the rest is estimate based on uncertain premises. We may consequently set down the population of Indo-China at about 10,000,000, until such time as definite statistics of the whole are available. This gives, for the whole territory, mountain and delta combined, an average population to the square mile of only 38 persons. The neighbouring empire of China possesses a not dissimilar proportion of mountain and delta land, and the figures for the eighteen provinces, the 'Central Kingdom,' are—area, 1,300,000 square

miles; population, 300,000,000, which gives an average to the square mile of 230 persons; but in China, it must be remembered that the mountains have been cleared everywhere, and that, in the southern and central provinces, these are terraced and irrigated, often to a height of 2,000 feet, whereas in Indo-China, as in the neighbouring Malay peninsula, the mountains are yet uncleared, being still covered with virgin forest and impenetrable jungle.

The boundaries of Indo-China are simple and well defined: on the north the escarpments of the Yunnan plateau and the southern frontier of the Chinese province of Kwangsi; and on the west, the river Mékong which separates the Laos from British Burma and the province of Annam from Siam, and which, in its delta, traverses Cambodia; on the south and east, the sea. French and British territory are coterminous for a distance of about seventy miles, where the Mékong, descending from Yunnan, passes through the 'Shan' state of Kiang-keng, once under nominal Burmese suzerainty, but now divided between two European Powers. Thence the 'great river of the south,' passing by the much-disputed frontier of Luang-prabang, marks, for a distance of 600 miles, the boundary between Siam and 'Lower Laos' till it reaches the frontier of Cambodia. This 'Lower Laos,' usually included in our maps as a part of Annam, comprises the strip of country running north and south between the coast ridge of Annam and the Mékong river; Annam, strictly speaking, being confined to the country east of the water-parting and the land drained by the rivers flowing into the China Sea: west of the water-parting the streams discharge into the Mékong and cross Lower Laos to do so. Upon entering Cambodia, the Mékong ceases to form the boundary; the latter turns west at the Laos town of Stung-treng, crosses the great lake 'Talé-sap' (to the north of which lie, hidden in jungle, the marvellous ruins of Angkor-wat) and descends to the sea in the gulf of Siam at Cape Samit. South and east of this line lies Cambodia, a French protectorate with a titular king, Norodom I, having his court at Pnom-penh on the Mékong; and north and west the still nominally independent kingdom of Siam. Shortly after leaving Pnom-penh the Mékong enters Cochin-China proper, a province formed in

the course of time from the alluvium brought down by the Mékong and to-day constituting the upper delta: with the exception of a few hills in the north and the hilly promontory of Cape St. James—once an island in the sea, but which now forms a welcome relief in the wide belt of mangrove-swamp out of which it rises—the whole of Lower Cochin-China consists of lowland, painstakingly reclaimed from the sea and the mangrove, and gradually transformed into endyked paddy-fields. Saigon, the capital, stands on the river Donnai, which



FIG. 29.--Approaches to Saigon.

rises on the western slope of the Annam mountains, on the Lang-biang plateau, and enters the sea at Cape St. James, in the estuary of the Mékong, but east of its principal mouths. Saigon communicates with the Mékong directly by a fifty-mile long railway to the town of Mytho, built on the left bank of the river; the whole delta is intersected by numerous navigable creeks—*arroyos*, as the French call them—greatly facilitating the inter-transport of the main staple, rice, of which Saigon is the entrepôt and shipping-port.

Leaving Cape St. James, the frontier trends north and we enter the hilly country, which extends thence uninterruptedly until low land is once more reached in the deltas of the Songma and of the Red River and its affluents: between the crest of the mountains, which run up to 7,000 feet, and the seashore stretches the kingdom of Annam with its capital Hué. The city of Hué is built 14 miles from the mouth of the Hué river, and forms the residence of the king—Than-tai, as his present majesty is named; on the same coast, 65 miles to the south of Hué, is situated the French settlement of Tourane, on the fine bay of that name which is inserted midway between Cape St. James and Haiphong, and is the only really safe and commodious harbour in all winds along this 800-mile stretch of coast-line. Captain Bertrand (*L'Indo-Chine*, Paris, Charpentier, 1901) tells us that in the early period of the conquest Annam was compared to the beam of a scale with two rich 'corbeilles' hung at each end—a mountain-chain with an alluvial delta at each extremity. He says, 'Never was there a falser analogy. . . . Annam yields nothing to the two other divisions of Indo-China: on the contrary, from many points of view it is from Annam that the coming wealth of our colony will be derived. Taken altogether and looked at superficially, it is a long, narrow strip of land shut in between the sea and a wall of forbidding mountains: in reality, it is a succession of valleys which reproduce on a small scale, each with its own special characteristics, the features exhibited on the banks of the Red River and the Donnai. The chain of Annam is not a continuous and uniform rampart: north of Kwang-binh (250 miles below Haiphong) it exhibits a series of parallel ridges, running south-east and north-west, separated from each other.' These depressions are traversed by three rivers flowing east into the sea and by two which flow west and discharge into the Mékong, besides many smaller streams: those flowing east have formed alluvial valleys, stepping-stones, so to say, by which, in the early centuries of our era, the original inhabitants of Tongking, spreading southwards, gradually made their way to the occupation of Annam.

South of Kwang-binh, where the Annam range commences to sink towards the Tongking plain, and where the moun-

tain chain is at its narrowest, we find a thickly wooded crest diversified by high peaks, similarly drained by streams discharging respectively into the Mékong and the sea.

This coast-line is deeply indented, forming a succession of bays and promontories, with many rocky islands—prolongations of the mountain spurs—in the adjoining sea. Hué, the capital of Annam, is situated on one of these, a bay at the mouth of the Hué river, but the port is obstructed by a bar covered with only ten feet of water, rendering it difficult of access at all times, but especially during the prevalence of the north-east monsoon: the whole of this coast is exposed to the full force of the monsoon, rendering the inter-coastal traffic dangerous in the winter season, while in the summer the typhoons of the China Sea are a risk to be constantly dreaded. Hence, as in China proper, the dangers of the open sea and of the great rivers have been sought to be circumvented by internal waterways. Such are not practicable along the steep coast-range, but at the point where this recedes and leaves room for the Song-ma delta, such coastwise canals have been attempted. A land road going northwards leads along the coast from Hué to Ha-tinh, at which point a canal connects the rivers Song-ma and Song-ka, which take their rise in the Laos country behind, with the Red River basin in the north: here the Annam coast-range is more broken up and less wall-like, and admits these rivers to force their way through to the coast, and so discharge into the sea. About 60 miles south of Hué is a deep bay, into which falls the river Han, forming one of the most spacious and safest ports in Indo-China; on this bay stands the French settlement of Tourane, and port of call for the Messageries Maritimes steamers: 20 miles farther to the south lies the coal-field of Fai-fu, which communicates with Tourane by a canal navigable by large junks. Between Tourane and Cape St. James, a distance of 900 miles following the coast-line, two ports only are available, Quin-hon and Nha-trang, both situated on bays with fertile strips of land between the sea and the mountains in the rear. These mountains form a barrier which has confined the kingdom of Annam to the strip of land between them and the sea, and left the less civilized Laos behind them independent. Towards its northern extremity, north of Kwang-

binh, the rampart is broken into a series of parallel ranges running south-east and north-west, separated by depressions which now admit the rivers that take their rise in the Laos country behind to pass through to the sea. The water-parting here recedes to the west, the rivers rising on the east side of the Luang-prabang plateau, the Song-ka, the Song-ma, &c., flowing seawards, their alluvium having gone towards forming a southern extension of the Hanoi plain; while the rivers that take their rise on the western side of the plateau, the Nam-hou and others, discharge into the Mékong. All these rivers are mountain streams navigable only a few miles from their mouths until we come to the Rivière Noire, the dark river, which flows south of and parallel with the great Red River of Tongking, of which it forms the principal affluent. South of Kwang-binh the coast range is at its narrowest, and consists simply of a steep densely wooded chain, practically impassable: below Tourane the mountains increase in size, and are cut up by deep, narrow valleys, giving rise to streams in whose fertile deltas we find the inhabitants of the country congregated: south of these the mountains spread out into a succession of plateaux sloping gradually to the west, with spurs protruding seawards, and so forming a series of separate bottoms divided by rocky walls, the width of which between the mountains and the sea varies considerably. The southernmost of these spurs is that terminating in Cape Varella: in each of these natural divisions small independent settlements arose in early times, but the barriers between them being not absolutely impassable like the mountain range behind, the conquering Annamese had little difficulty in welding the whole into one, once powerful, kingdom. The Chinese and Annamese came down by land from the north; the Hindus and Malays by sea from the south; and for long centuries the country was disputed between these different races, now at length amalgamated into one people. In the seventh century of our era the Shans became masters of Northern Annam until, in their turn, they came in contact with the Tongkingese in the north, and had to succumb before a more warlike and vigorous race.

COCHIN-CHINA

The southernmost of the five divisions of Indo-China (Cochin-China, Cambodia, Annam, Tongking, and Laos) is Cochin-China : this was the province first taken by the French in 1863, and is the richest and most populous. The province corresponds almost entirely with the lower delta of the Mékong, that of the Donnai, a short but copious river descending from the Lang-biang plateau in Annam, to the east and on the banks of which is situated the capital, Saigon, being absorbed within it. The Donnai stands in relation to the Mékong much as the Bramaputra to the Ganges, the Sunderbunds of their joint delta being represented in the Mékong delta by the wide band of mangrove swamp which separates the cultivated rice land from the sea, and the network of salt-water creeks, or arroyos, traversing the swamp land, from the fertilizing fresh-water creeks of the land reclaimed from the salt mangrove, now made by art into a patchwork of endyked paddy-fields. North-east of the delta, twenty miles above Saigon, at Bien-hoa, low hills appear, outlying foothills of the Lang-biang mountains of Annam : here the alluvial land ceases on the Annam side, the rocks rise above the alluvium, and at Bien-hoa is found a very compact reddish-coloured stone, formed of a ferruginous clay conglomerate known as Bien-hoa stone. The new railway now being built from Saigon to the Lang-biang plateau, 4,500 feet, passes through Bien-hoa and is the commencement of a grand trunk line, destined to connect Cochin-China with Tongking in the north, and ultimately with the Chinese Empire beyond : one branch leading by way of Langson, Kwangsi, to the southern provinces of China, and the other climbing on to the Yunnan plateau by way of Laokai and the valley of the Red River. Cochin-China, simply a tropical delta, is naturally devoted to rice as its main production, and, with an area of one-twelfth only of the whole of Indo-China, it produces four-fifths of the total supply of the colony ; other tropical productions, chiefly sugar and cotton, being as yet produced only on a limited scale. Rice is the staple resource of the colony, and although, owing to the less efficient labour of the Annamese as compared with that of the

neighbouring Chinese, the yield per acre is less and the quality inferior to that produced in the surrounding countries, while the taxation is far heavier, yet the surplus available for export from Saigon is annually about 750,000 tons. Siam exports nearly the same amount from Bangkok, and Burma just double the quantity from Rangoon. Seeing that the area of the paddy-land of the three countries respectively is, Cochin-China 150,000 acres, and in Siam and Burma each more than one million, many economists deduce the fact that the Cochin-Chinese are driven to sell an unduly large proportion of their produce, leaving themselves insufficiently provided for. The yield of an acre in Cochin-China averages 1,500 lb., as against an average of 2,000 lb. from the irrigated fields of Java and of Burma, while the respective values are approximately: Cochin-China £8, Burma £10, and Java £20 per ton. Owing to its inferior quality, the export is confined principally to China and Japan; a small quantity is shipped to France, where its import is artificially encouraged by protective duties. Rice forms two-thirds of the total exports from Indo-China, other tropical productions being so far mostly in the initial stage of development. Indo-China being favoured with an ample rainfall, a rich soil, and altitudes varying from the sea-level to 4,000, 6,000, and 8,000 feet, will doubtless in time, as the country is cleared and population increases, rival Ceylon and Java in the wealth and variety of its produce, especially if the present regulations hampering Chinese immigration be modified or withdrawn.

The Tongkingese are the immediate descendants of Chinese immigrants from Kwangsi and Kwangtung (Canton): they exhibit similar aptitudes, but, living in a warm malarious climate, and owing also to intermarriage with the aboriginal Shans and with immigrant Malays, they lack the persistent energy of the Chinese, whose customs and methods they however religiously follow. Out of a population estimated at about 10,000,000 only about 100,000 are Chinese: mostly merchants, handicraftsmen, and petty traders congregated round the European settlements. In 1900 the European population, of whom French functionaries form the chief proportion, was given as 5,000 (Lagrillière-Beauclerc, *désumé*

en mission d'études par M. le Ministre des Colonies, Paris, Jallandier, 1900). The 'foreign' population is said to have increased since to 8,000: this is exclusive of an equal number of French troops forming the permanent garrison of the country.

CAMBODIA

Cambodia, formerly an independent kingdom, appears to have been founded originally by Hindu conquerors who advanced by way of Siam, overcame the original inhabitants of Malay stock, and left permanent evidence of their high state of civilization in the immense palaces and temples whose stupendous ruins now form one of the wonders of the world. These huge edifices, built entirely, roof and all, of solid stone, and now buried in the jungle, show signs of having been abandoned before completion, probably owing to a successful Siamese, or possibly Annamite, invasion which scattered the inhabitants and made an end of Hindu rule. Cambodia in early times was one of the most powerful and flourishing kingdoms of the Siam-Annamese peninsula. Chinese annals of the Han dynasty quote it, in 57 B.C., as being under Chinese rule, and we know that Buddhism and sculpture were introduced into Cambodia in the fifth century A.D.; we also read in Chinese annals of ambassadors from Cambodia being sent to Chang-an in the time of the Sui dynasty, A.D. 616. In the sixteenth century the Cambodians overran Siam, but in the following century, at the time when Europeans first gained a knowledge of the country, the Cambodian Empire was in full decay, the Siamese encroaching on its territory from the west and the Annamese from the east; while its outlying provinces on the upper Mékong were annexed by the invaders from the north, the ancient capital of Angkor Tam falling into their hands. The southern provinces were captured by the Annamese, and were still in the hands of the latter, when Tuduc, the Emperor of Annam, was forced to cede three provinces of Cochin-China to the French in 1863, and the remainder by a new treaty signed at Hué in 1867. Already, in 1864, Siam had been compelled to transfer her protectorate over Cambodia to the French. Although their territory was long ago reduced

to its present narrow limits, the kings of Cambodia claim that their dynasty has occupied the throne for over 1,000 years, having, however, been since 1706 tributary to Siam, much as Annam was tributary to China. It is noteworthy in this connexion that a British factory was established off the coast of Cochin-China in 1702 on the island of Pulo Condore, and that a consul for the Far East was appointed to reside there by King William III.

The territory of Cambodia, measuring 240 miles north and south and 180 miles east and west, and now containing only 38,000 square miles, comprises an extensive and exceedingly fertile plain, watered by the Mékong and the great lake Talé-sap, with their numerous affluents and connecting channels. The plain is diversified in the west by isolated hills and short ridges, and is bounded in the north by the P'nom Dangrek range—the last of the heights that extend thence uninterruptedly to the borders of Yunnan and beyond. The space between this range and the northern shores of the lake is strewn with the Brobdingnagian ruins of Angkor and many other remains which still attest the former greatness of the Cambodian Empire when it formed one of the chief centres of Buddhist culture in the East. The population of this plain is, as we have seen, only about 1,000,000 souls. Cambodia thus commences at the point where the Mékong issues from the northern mountains, and ends at the point where the river splits up into several mouths, by which has been formed the delta of Cochin-China: it is bounded by Siam and the great lake on the north, i. e. that half of Siam which lies along the right bank of the river and has now been acquired by the French as their 'zone of influence' by the treaty of 1893, negotiated with Siam under British intervention; on the south its shores are washed by the gulf of Siam, and on the west the wild Laos country forms the boundary; in the centre, on the banks of the Mékong, stands the capital, Pnom-penh.

The Mékong, taking its rise in the high Tibetan plateau 14,000 feet above sea-level, where it is known as the Lan-tsang, flows almost due south for a long distance parallel to the Kinsha, or Upper Yangtse river, traverses Yunnan, and continuing its course south, descends through the Shan country

from terrace to terrace to the sea. Its middle course thus forms a series of comparatively tranquil navigable reaches separated from each other by formidable rapids. At first sight the river, on inspection of the map, appears to be a magnificent artery of communication, and this the French took it to be until actual exploration proved the contrary. Owing to this peculiarity and the fact of the country being covered with thick jungle from of old, isolated settlements grouped themselves along either shore, holding little intercourse with each other. Up to Kratié, a town situated on the Cambodian frontier, 100 miles above Pnom-penh, the river is unobstructed: below Pnom-penh it divides into three branches, of which the western, at the season of the summer rise, goes to fill the great lakes, draining them off again as the river falls in the winter dry season; these lakes thus act as reservoirs for the surplus water much as, in China, the Poyang and Tungting lakes do for the Yangtse in its lower course. The Mékong thus fertilizes Cambodia each year, like as the Nile does Egypt. The remaining branches subdivide again lower down, and mingling their waters with those of the Donnai, coming from the east, discharge into the sea by numerous mouths. Thus the regions traversed by the river offer a similar succession of contrasts, as do those traversed by its sister stream, the Yangtse: above, the deep gorges of the Tibetan border, Yunnan and the Shan states, then the plateau of Luang-prabang, seamed by lofty thickly-wooded ranges, then the open forest region and the wide plateau valley of Bolowen, which is annually submerged when the river is in flood, and, lastly, the alluvial plain of Cambodia and the delta of Cochin-China. It is in these last two divisions alone that any considerable population is found at the present day—a population deriving its origin mainly from the west—India, Siam, and Malaya; yet, notwithstanding the mountain barrier to the east, the more warlike Annamese succeeded in the seventeenth century in making themselves masters of the Mékong delta and so intermingled with the inhabitants that at this day all racial distinction has ceased to exist. Up to that time the two great delta lands of Indo-China, Cambodia and Tongking, had pursued concurrently an independent development: of the former the early records are

fragmentary and obscure (although Chinese historians mention Cambodia and write of the Cambodians as a warlike race rendered effeminate by their great wealth). The more detailed history of the latter is preserved in the prolix annals of the Chinese Empire, whose domination over Cochin-China was too short to produce any lasting result, literary or political. From the facts that are known, the Mékong delta appears to have been a bone of contention to the surrounding nations from time immemorial, and to have been in a constant state of unrest; the Red River delta, on the other hand, adopted from China a high civilization and a scientific system of administration tending to more permanent stability, and a stronger national feeling amongst its inhabitants.

The river Mékong has, since the occupation, been the scene of heroic attempts on the part of French naval officers to prove its navigability and so open the Laos country bordering its upper waters: but the rapids are such that, though traffic by steamers is not absolutely impracticable, yet the difficulties and delays are too great for this route, however politically valuable, ever to prove commercially profitable: the rapids commence at Kratié in Cambodia, 300 miles from the mouth, and are passable by small, high-powered, light-draft steamers at high river, but above these are the famous cataracts of Khong, round which a railway, four miles long, has been built, and special steamers now navigate intermittently stretches of the river as far as Luang-prabang, and so the country of the Laos is being gradually brought into touch with Cochin-China by their means. The numerous launches and small steamers that circulate throughout the delta do not, however, ascend above Kratié, and the navigation of the great lakes and the channels leading to them is entirely restricted to the high-water season from July to December. During this season, however, the traffic is very active, and tropical produce from Siam, as well as forest products from Laos, are brought to the Saigon market: the soil of Cambodia has been found eminently suitable to the growth of cotton, which is steadily extending, and which finds a ready market in Japan, to which country some 5,000 tons were exported from Saigon in 1900.

Thus, from Cambodia, by way of the Mékong, we penetrate the next division of Indo-China.

LAOS

The Laos country, which contains nearly half the area with only about one-twentieth of the population of the whole colony, forms the *Hinterland* of the Indo-Chinese peninsula, shut off from the sea by Cambodia, Cochin-China, Annam, and Tongking, and comprises all the land between these and the Mékong up to the Yunnan frontier, and includes the kingdom of Luang-prabang, until 1893 a dependency of Siam. All this region is now being actively administered by French officials, and, as in Tongking, every inducement is held out to European settlers to open up the country and develop its resources; but the Laotians, of Malay type and lacking the Chinese element which has stamped its energy and civilization upon the Annamese of the coastal lands, dislike work and are of little use for the purpose. They live idly along the banks of the numerous rivers of the country, their mat-shelters built out on piles over the water, as in Malaya; the people are, however, taller and more robust than the Annamese of the hot deltas: they live chiefly on glutinous rice, cooked by steaming, with salt fish as a condiment, and it is interesting to be told that they are water-drinkers, pure and simple. The land, as we have seen, lies high, descending in a series of terraces from an altitude of 7,000 feet in Yunnan to the sea-level in the Mékong delta. The whole country is covered with forest, and the paths that traverse it are only passable in the dry season; thus an extraordinary amount of labour must be expended before the country can be really thrown open to settlement. The country is analogous in many respects to the famous 'Terai' at the foot of the Himalayas; the rainfall is heavy, the clouds being largely intercepted by the Laos mountains before they reach the plateau of Yunnan: in the wet season from May to November, the rainfall is said to average 90 inches, six times the amount that falls on the plateau beyond.

ANNAM

The protectorate of Annam comprises the strip of narrow land compressed between the Annamese mountains and the

sea, about 800 miles in length and nowhere more than 100 miles in width. Annam is best known by its capital, Hué, the residence of the late 'emperor,' Tuduc, with its magnificent citadel, constructed by French engineers in the eighteenth century, after Vauban; and by the French settlement at Fai-fu on the fine bay of Tourane, finally ceded to France in the reign of Louis XVI. In 1802 the Annamese conquered Tongking, and the emperor, Chia-lung, was recognized at Peking as the ruler of Cochin-China, Annam, and Tongking. His successors recommenced a persecution of the Christians, and put to death the French and Spanish missionaries after ordering them to leave the country, which they refused to do: the result was the bombardment of the forts in the bay of Tourane, and the destruction of the Annamese fleet by Admiral Rigault de Genouilly in 1847. In 1856 another naval demonstration in the bay of Tourane was made and the forts were taken; in 1863 Saigon was attacked and taken; in 1867 Cochin-China was finally annexed and Annam placed under a protectorate, the former country being handed over from military to civil administration in 1879. Meanwhile the subjugation of Tongking was proceeding: the capture of Hanoi by François Garnier took place in 1873, and the conquest was cemented by the treaty signed with Li Hung-chang at Tientsin in 1885.

The people of Annam produce little beyond what suffices for their own needs, and have no surplus available for export: the most important local industry is the preparation of salt fish, the fisheries along the coast being very productive, supplying the wants of the bulk of the population of Indo-China; but this once flourishing trade has sadly diminished ('bouleversé,' Captain Ferrand) since the decree of 1899 raising the salt-tax to 50 cents the picul of 133 lb., and so increasing the cost to the consumer tenfold. In British India the tax is, however, still heavier (1 rupee 8 annas per maund), and is held by economists to lessen the consumption of this indispensable condiment to an extent detrimental to the health of the poor ryot as well as of his cattle. In Burma the tax is 1 rupee only. Throughout Indo-China, rice and salt fish is the staple diet of rich and poor alike, and the salt fish with his rice is as indispensable to

the Annamese as is tea to the Tibetans with their diet of parched barley-porridge. A curious and peculiar feature of Annam is that, in distinct contrast with all the surrounding countries, the chief rainfall occurs in the winter with the north-east monsoon; the Annam range intercepting the summer rains from the south-west which deluge the Mékong delta, and in a less degree that of the Red River in Tongking, and which give to India and China their wet summers and dry winters. The rains in Annam set in usually about the middle of September, commencing with violent storms which occur at intervals up to the end of October, by which date the north-east monsoon is thoroughly established up and down the China Sea from Singapore to Newchwang. The wet season lasts on until March, the rain in midwinter often continuing for days together; the summer, on the other hand, is extraordinarily dry: the clouds which gather on the mountain-tops every evening discharge their moisture on the heights, filling the rivers which flow through a perfectly dried-up country to the sea. Under these abnormal conditions the rice-harvest is reaped in May, the planting-out having taken place in January, leaving the grain to ripen slowly under an overcast sky, whereby a crop of poor quality and small in quantity is secured. The Annamese farmer is fortunate if he secures a yield of 700 lb. to the acre, as against 1,500 lb. in Cochin-China adjoining. If the rains are prolonged beyond the usual period, or if they cease too soon, the crop may prove a failure altogether. In short, the yield is precarious, and Annam in consequence is subject to periodical famines, which in the absence of practicable land-roads and with constant gales interfering with the navigation along the rock-bound coast have, even under French rule, gone unrelieved. It is no wonder that, under such circumstances, the Annamese have looked with longing eyes on the rich delta lying behind their mountains: at the time of the French conquest, Cochin-China had been so long settled by them, and the original Indo-Malay population so driven out or assimilated, that the race is now undistinguishable from the pure Annamese; Chinese Confucian civilization having entirely replaced the ancient theocratic rule originally introduced from India.

TONGKING

The great rivers Yangtse and Mékong, starting together from Tibet, diverge in their courses as they approach the table-land of Yunnan, the former taking an eastern and the latter a southern course; they leave vacant between them a wide drainage area which has been occupied by the Red River of Tongking. The Red River takes its rise in two main forks, the Ta-tung-ho and the Ma-lung-ho, not far south of Tali, in the snow-capped mountains surrounding the famous Lake Erh-hai, at an elevation of some 7,000 feet above the sea; thence it traverses the Yunnan plateau as an un-navigable torrent, in a gorge cut down through the plateau to a depth of 3,000 and 4,000 feet: crossing the Laos border at Manhao, south of the inland 'Treaty Port' of Mengtse, whence it forms the boundary between Yunnan and Tongking as far as Laokai, situated at the head of navigation of the Red River, 300 miles from the mouth. The fall in the river-bed in the short distance from Manhao to the sea being nearly 500 feet, the channel is necessarily infested by rapids and only navigable in the high-water season from May to November, and then only by steamers drawing 4 to 5 feet. The ostensible reason for the seizure of Tongking was originally the utilization of this short cut to what M. Lagrillière-Beauclerc terms the richest province of China—Yunnan: experience has, however, demonstrated that the Red River route is impracticable for serious traffic and hence, at the instigation of the enterprising late governor of Indo-China, M. Doumer, a railway is now being constructed from Hanoi to the capital of Yunnan, destined to tap the rich El Dorado of this distressful province and to compete with the longer and tortuous outlet via the West River to Canton. The scheme is a bold one and deserves success: it only remains to be seen how a thinly-peopled and partially-developed colony like Indo-China will support the cost of the necessary subvention. From Laokai downwards the river continues to flow in a ravine with wooded mountains on either bank rising to 4,000 and 5,000 feet; until at Vietry, half-way down, the river enters the delta and receives its two main affluents, the Rivière Noire from

the Laos country to the north-west and the Rivière Claire from the Kwangsi border on the north. Thence to the sea, it flows between banks endyked to protect the surrounding paddy-fields, and leaving the capital of Indo-China, Hanoi, on the right bank, it enters the sea by several mouths, none of which are available for ocean-steamers: hence M. Doumer's project of creating a new shipping-port in the beautiful bay of Along, adjacent to the Hongay and Kebao coal-fields, which would then be connected with the present port of Haiphong by a canal 25 miles long. Haiphong, after Saigon the principal port of Indo-China, is situated not on the Red River, but at the mouth of a stream called the Cua-cam, a canalized off-shoot, part of the intricate network of sluggish streams, half canals, half tidal creeks, with which the whole delta is intersected. Tradition avers that Hanoi in the fifth century was on the sea-coast. Certainly the delta, as everywhere in the vicinity of the great Asiatic rivers, is fast encroaching on the sea, as much as 150 yards of land annually being gained in parts of the Tongking Gulf: the Annamese first endyke and then wash out the salt from the land by fresh-water canals drawn from the river, and, as the river's mouth advances, raise ever fresh embankments to protect themselves: yet, as in China, these are frequently overflowed and undermined, when great damage ensues. The fact of the mouth of the Cua-cam being the most easily accessible entrance to the delta had thus led to the establishment at its mouth of the port of Haiphong in the days of junk traffic prior to the French occupation, but it is obstructed by two bars which the French, with their usual energy and disregard of cost, are busily engaged in removing; 4,000,000 francs having been voted for the purpose in 1902. At present the steamers of the Messageries Maritimes, running from Marseilles to China, connect with the port by means of a branch line of coasting vessels running from Saigon to Hué and Haiphong, there being at present only 20 feet on the bar at high water: but Haiphong, as the port of the capital Hanoi, 80 miles higher up, and with which it is now connected by rail, as well as being the head quarters of the inland steam navigation of the Red River and the countless 'creeks' of the delta, is hardly

now likely to be dethroned from its premier position. Cotton-mills and other manufactories are being established, and the place has undoubtedly a great future before it, such as to justify the outlay incurred and the enterprise displayed in building a large city on a wretched swampy site barely raised above the level of high-water mark.

Tongking, though its area corresponds generally with that of the Red River basin, outsteps this limit in the east, where



FIG. 30. —The Delta of the Red River.

the boundary between Tongking and China crosses the watershed; the district of Langson, now annexed to Tongking, being part of the basin of the West River of Canton. The railway, now opened to the Kwangsi border, climbs the ridge that forms the water-parting, running through a jungle-covered country rendered desolate by ten years' warfare, and descends to the walled city of Langson, and so to the frontier, whence an extension across Chinese territory via Nanning and Wuchow, and down the West River valley to Canton, is in contemplation.

The delta of Tongking, with its converging rivers and surrounding difficult mountain country, forms a natural focus of immigration and home for an independent people: as, however, the low lands became crowded, the rivers were reascended to their limit of navigability, settlements were founded along their banks, and clearances effected.

Tongking was apparently colonized long before the Christian era by immigrants from South China who, as in China generally, absorbed the aborigines and imposed upon them Chinese civilization. The difficulties then met with in penetrating into the interior were the same as to-day—the mountains, the wild inhabitants, and the climate; the former the Tongkingese vanquished, but they succumbed to the latter. The confused mountain mass which fills up Northern and Western Tongking offers in turn steep forest-covered slopes, narrow ravines enclosing torrents, intermingled with small flat valley-basins which rains and river-floods combine to convert into impassable quagmires. ‘The “assainissement” of a country like this requires the sustained effort of generations, and a secular change in the habits of the inhabitants and their methods of agriculture; now there were other lands more easy to conquer and situated under similar conditions, viz. the series of deltas in Annam. . . . Thus by degrees the Annamese, as they developed, were led to extend along the low coast-line until they reached Cochin-China, keeping steadily outside of the mountain zone in which the tribes fleeing before the invader took refuge.’ And so the Indo-Chinese peninsula became peopled with a race of Chinese stock thickly congregated along the coast, while the mountains of the interior remained the home of widely-scattered Shans and Laos, races allied to the Siamese and first cousins to the southern Chinese: the Annamese, on the other hand, are more distinctly Mongol-featured, and, in Chinese dress, would always pass for Chinese, from whom they are hardly distinguishable by their slighter frame and generally darker tint.

Apart from a few tentative plantations of tropical produce—coffee, tea, indigo, &c., the chief development-work under French occupation has been the opening up of the vast coal deposits found at Hongay, situated on the bay of Along to the

east of Haiphong. The mines now turn out about 1,000 tons a day, which finds a ready market in the steamers plying on the coast and in Hongkong and Shanghai, as well as in the various industries of the colony. These mines were originally opened out by Hongkong capitalists; the venture was at first unsuccessful, but since it has been taken over by a French company with its head quarters in Paris, with ample capital, development has proceeded on a large scale, and dividends up to 25 per cent. per annum have been earned by the shareholders. The seams, one of which is over 70 feet in thickness, are worked from the surface. 'Hongay is one of the few open coal-fields of the world, and contains hills of coal with seams 70 and 80 feet thick' (Cunningham, 'The French in Tongking and South China,' *Hongkong Daily Press*, 1903). There seems little doubt that the coal measures are distributed throughout Indo-China as they are throughout the greater part of the immense area of China proper, as well as in Mongolia and Manchuria, and that the 'Far East' holds in its bosom the world's coal supply of the future. M. Sarreau, in his report published in 1899, quotes the tertiary formation of the Red River basin as exceeding 3,000 feet in thickness, and states that the strata range from stratified limestone and conglomerate below, to argillaceous schists and green and yellow sandstones above. The Hongay coal is a kind of friable anthracite, such as is so common in China, but deeper boring is expected to show a type similar to that of Cardiff, and more bituminous. Speaking of the coal at Laokai on the Yunnan frontier, he says: 'This coal burns rapidly like a combustible impregnated with petroleum; this confirms our view that the coal grows richer in volatile matter as we proceed from east to west of the coal basin.'

We have been able to write more fully about Tongking because, being under 'foreign' rule, the country and its resources have been better observed, and so more is known about it than is of those parts of Asia still left under native rule, where every obstacle is thrown in the way of the explorer and the natural instinct of the governments is to keep the 'foreigner' at arm's length, and fight shy of his dangerous proposals to help reveal the talents they themselves try to

keep hidden in a napkin. Indo-China is an epitome of China proper, and it only needs time, coupled with a more liberal régime, for the country to become as productive as China proper, and far more prosperous. But the French 'mandarin' needs conversion to common sense almost as much as his Chinese prototype. The country is overburdened with officials, needing oppressive taxation to support them, while the influx of Chinese, whose labour has so enriched the Malay states and Sumatra, is actively discouraged. A tariff-wall has been sedulously built round the colony, and the cost of every article of consumption heavily increased to the inhabitants without a corresponding relief to the colonial budget. Thus in the Budget-Général of Indo-China for 1902, we find under receipts, 'Product of Customs, \$6,250,000'; and under disbursements, 'Administration of Customs, \$5,351,000'; nearly the whole receipts going to support the 800 functionaries employed to collect them. The late Prince Henri d'Orléans, whom no one can accuse of not being a patriotic Frenchman, wrote, in his *Around Tongking and Siam*: 'We had not been masters of Tongking for two years before we surrounded it with a thick wall of customs dues, and in order to gratify a few French traders we arrested the commercial development of the colony, not reflecting that a budding colony needs a maximum of liberty and free action; that the greater the imports and exports, the greater the profits.' But, apart from this what appears to us most short-sighted fiscal policy, the French *municipal* administration is ages in advance of anything known in British colonies; not only is everything conceivable done for the health, comfort, business needs, and pleasure of the present inhabitants, but a wise forethought, which seems to be absolutely lacking in our dependencies and Crown colonies, provides amply for future expansion. 'Hanoi (first settled only fifteen years ago), a city built up among Asiatic surroundings, is superior in these respects to any in the Far East. Shanghai may claim more business; Hongkong may proudly refer to its Peak residential quarter and its roads cut in solid rock; Manila to its ancient city; and Singapore to its splendid breadth; but in *tout ensemble*, Hanoi is undoubtedly the superior.' In the amenities of life, in arrangements for

preventing native overcrowding, and in sanitation generally, in wide streets, open places, strict building rules, and, above all, in a careful provision for the future extension of the city on a prearranged plan, Hanoi and Haiphong stand pre-eminent. Bombay and Calcutta display far more solid wealth and activity, but in elegance as well as in the practical amenities of city existence will bear no comparison with Saigon and Hanoi. The latter city now claims to be the healthiest of all European settlements in sub-tropical Asia. The home French Government is proud of its colonies, as it has reason to be, and aids them in every way financially as well as politically, but is too much inclined to treat them as a private preserve for Frenchmen. Indo-China is now progressing by leaps and bounds: it only needs some relaxation of native imposts and greater freedom in external trade to assure the permanence of its present phenomenal progress.

CHAPTER XV

WHILOM DEPENDENCIES: PART II. COREA

THE analogy we have already indicated between the eastern coast of North America and that of Eastern Asia cannot fail to strike any one who studies their geography and is familiar with the climate and resources of the two regions. Either is situated on the east coast of a great continent: each is affected by a warm gulf stream, the reflux of the trade-wind driven current in the tropical regions to the south—deflected off its shores by the land-masses obstructing a continuous western flow—and thus the stream, as it starts eastwards, leaves room in both cases for the descent of a cold Arctic current between it and the coast to the north. The distinction is that on the Indo-China coast, owing to the different configuration of the land and the wider sweep of the Pacific, these phenomena take place in a lower latitude. On the coast of North America, the Gulf Stream ascends to 35° north before moving east; on the coast of China the Kuro-siwo takes its departure on the verge of the tropics. The monsoon winds, due to the larger land-mass of the Asiatic continent, that prevail off the coasts of India and China go farther to emphasize the distinction; blowing in winter steadily from the north they drive the surface cold water at that season farther south than do the more intermittent gales of the North Atlantic; on the other hand, in summer the persistent southerly winds drive the warm surface water of the tropics farther north along the coast of China; hence, in the Formosa Channel, between the island of that name and the mainland, we have a two-knot northerly current in summer, while in winter we find a still stronger current flowing south, and the Kuro-siwo deflected entirely to the outside of Formosa. Surprising extremes of climate are the result, the shores of the gulf of Pechili being fringed with solid ice several miles out to sea in winter, while in summer the

temperature of the water rises to the verge of 80° ; Tientsin, in latitude 39° , is a closed port from December to March, while in the summer the heat is tropical. Japan receives in summer the full force of the south-west monsoon on its southern coast and of the warm vapour-bearing Kuro-siwo current, and the air there at that season is fully as damp and muggy as at Hong-kong. Corea, situated between the two, and in the same latitude, happily escapes these extremes: it seems to lie in an

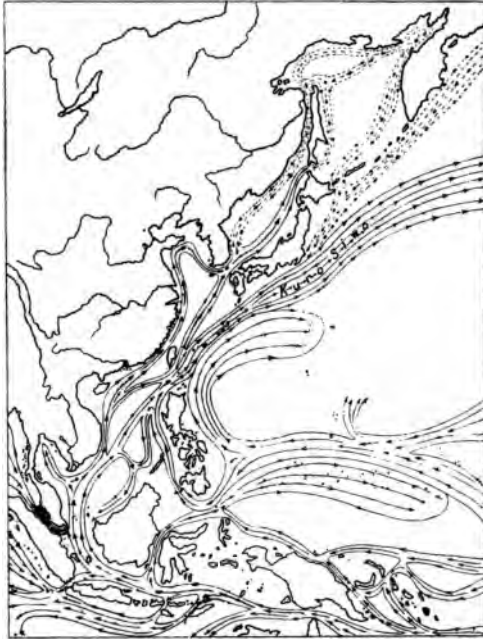


FIG. 31.—Currents in the China Seas.

intermediate zone, the warm gulf stream passing by on the south, while it is sheltered from the hard, dry, north-east winter winds by the protecting range of mountains that line its Pacific coast. To complete the American analogy—the Korean peninsula holds a position in relation to China similar to that held by the peninsula of Nova Scotia in relation to the mainland of New England. Both peninsulas escape the debilitating summer heat of the mainland, while the winters are fine and bracing

and the cold not excessive: both thus present conditions favourable to the growth of hardy cereals, well-fed cattle, and a sturdy population.

Mrs. Bishop, in her *Korea and her Neighbours*, gives such a succinct outline of the geography of the country, that we venture to quote it as it stands. 'The geography of Korea or Chao Hsien ("Morning Calm" or "Fresh Morning"¹) is simple. It is a definite peninsula to the north-east of China, measuring roughly 600 miles from north to south and 135 from east to west. The coast-line is about 1,940 miles. It lies between 34° 17' N. to 43° N. latitude, and 124° 38' E. to 130° 33' E. longitude, and has an estimated area of upwards of 80,000 square miles, being somewhat smaller than Great Britain. Bounded on the north and west by the Tu-men and Am-nok, or Yalu, rivers, which divide it from the Russian and Chinese empires, and by the Yellow Sea, its eastern and southern limit is the Sea of Japan, a "silver streak" which has not been its salvation. Its northern frontier is only conterminous with that of Russia for 11 miles.

'Both boundary rivers rise in Paik-tu San, the "White-headed Mountain," from which runs southward a great mountain range, throwing off numerous lateral spurs, itself a rugged spine which divides the kingdom into two parts, the eastern division being a comparatively narrow strip between the range and the Sea of Japan, difficult of access, but extremely fertile; while the western section is composed of rugged hills and innumerable rich valleys and slopes, well watered and admirably suited for agriculture. Craters of volcanoes, long since passed into repose, lava beds, and other signs of volcanic action are constantly met with.

'The lakes are few and very small, and not many of the streams are navigable for more than a few miles from the sea, the exceptions being the noble Am-nok, the Tai-dōng, the Nok-tong, the Mok-po, and the Han, which last, rising in Kang-wōn Do, 30 miles from the Sea of Japan, after cutting the country nearly in half, falls into the sea at Chemulpo on

¹ Chao Hsien does not mean the 'Land of the Morning Calm'; it applies to the land as seen from off the coast of Shantung and means the 'Fresh Glow of Morning,' as compared with Japan, the 'Land of the Rising Sun.'

the west coast, and, in spite of many and dangerous rapids, is a valuable highway for commerce for over 170 miles.

‘Owing to the configuration of the peninsula, there are few good harbours, but those that exist are open all the winter. The finest are Fusan and Wönsan, on Broughton Bay. Chemulpo, which, as the port of Seoul, takes the first place, can hardly be called a harbour at all, the outer harbour, where large vessels and ships of war lie, being nothing better than a roadstead, and the inner harbour, close to the town in the fierce tideway of the estuary of the Han, is only available for five or six vessels of small tonnage at a time. The east coast is steep and rocky, the water is deep, and the tide rises and falls from 1 to 2 feet only. On the south-west and west coasts the tide rises and falls from 26 to 38 feet!

‘Off the latter coasts there is a remarkable archipelago. Some of the islands are bold masses of arid rock, the resort of sea-fowl; others are arable and inhabited, while the actual coast fringes off into innumerable islets, some of which are immersed by the spring tides. In the channels scoured among these by the tremendous rush of the tide, navigation is oft-times dangerous. Great mud-banks, specially near the mouths of the rivers, render parts of the coast-line dubious.

‘Korea is decidedly a mountainous country and has few plains deserving the name. In the north there are mountain groups with definite centres, the most remarkable being Paik-tu San, which attains an altitude of over 8,000 feet and is regarded as sacred. Farther south these settle into a definite range, following the coast-line at a moderate distance, and throwing out so many ranges and spurs to the west as to break up Northern and Central Korea into a congeries of corrugated and precipitous hills, either denuded or covered with *chaparral*, and narrow steep-sided valleys, each furnished with a stony stream. The great axial range, which includes the “Diamond Mountain,” a region containing exquisite sylvan and mountain scenery, falls away as it descends towards the southern coast, disintegrating in places into small and often infertile plains.

‘The geological formation is fairly simple. Mesozoic rocks occur in Hwang-hai Do, but granite and metamorphic rocks largely predominate. North-east of Seoul are great fields of

lava, and lava and volcanic rocks are of common occurrence in the north.

‘The climate is undoubtedly one of the finest and healthiest in the world. Foreigners are not afflicted by any climatic maladies, and European children can be safely brought up in every part of the peninsula. July, August, and sometimes the first half of September, are hot and rainy, but the heat is so tempered by sea-breezes that exercise is always possible. For nine months of the year the skies are generally bright, and a Korean winter is absolutely superb, with its still atmosphere, its bright, blue, unclouded sky, its extreme dryness without asperity, and its crisp, frosty nights. From the middle of September till the end of June, there are neither extremes of heat nor cold to guard against.

‘The summer mean temperature of Seoul is about 75° Fahrenheit, that of the winter about 33°; the average rainfall 36.03 inches in the year, and the average of the rainy season 21.86 inches (3½ years’ average). July is the wettest month and December the driest. The result of the abundant rainfall, distributed fairly through the necessitous months of the year, is that irrigation is necessary only for the rice crop.’

Corea thus occupies an area little larger than that of one of the smaller provinces of China proper and is credited with a population of 10,000,000 only. The country could well support double this number, but, especially in the northern half, it is very thinly populated, large areas being still virgin forest: the soil is everywhere fertile and favoured with a sufficient and regular rainfall, but the Koreans are idle and indifferent husbandmen, showing a great contrast in this respect to their industrious neighbours the Chinese and Japanese. Life is easy and their wants limited to the bare necessities of food and clothing: all stimulus to exertion has been crushed out of the people by a government which exists solely for the benefit of the privileged classes, whose exactions are only limited by the poverty of the masses: these dare not accumulate wealth of which they may be robbed with no power of protest; yet in physique they are superior, and in intelligence, where the opportunity of its development is afforded, not inferior to other races of Mongol type; their long isolation has, however, proved

an effectual bar to progress, and the spasmodic interference of the Japanese, owing to their arbitrary and often brutal methods, has had no permanent influence, either in reforming the government or in elevating the people. It is noteworthy that some 20,000 Coreans of the poorest class, who have crossed the frontier into Russian territory and are now settled in the Manchurian coast province of Primorsk, where land has been awarded them on easy terms, and where the taxation is fixed

and moderate, have been raised out of their home poverty and listlessness into a thrifty and prosperous people. Korea has been a bone of contention amongst her neighbours, whose repeated invasions have led to periodical devastations of the country: the Coreans are essentially a peaceful and unwarlike race; they stood alone for a season and enjoyed peace and stagnation under Chinese protection—now this has been withdrawn, some other foreign protectorate is inevitable; the people seem too utterly apathetic to be able to reform their government and improve their condition on their own initiative.

Corea, being mainly a peninsula of lofty mountains projected from the Manchurian highlands southwards into the sea, has little plain country, there being no room for the extensive



FIG. 32.—Corea.
Orographical.

deltas which play such a leading part in the countries of the main continent. The rivers are necessarily short, and flowing mostly through granitic soil are not, like the rivers of China, turbid with loess and disintegrated sandstone, and so laden with land-forming silt. The peninsula is limited to the land developed from its mountain backbone in the east, averaging 6,000 feet in height with only a very narrow strip of cultivable land between it and the Pacific. On the west, the land slopes

gradually to the Yellow Sea, but is broken up by the spurs that spring from the high backbone into rich, undulating country giving rise to rapid rivers and beautiful scenery; comparatively level, cup-shaped basins, well adapted for rice cultivation, and in the centres of which are built the principal cities—among them the capital Seoul—are interspersed throughout. The principal rivers, to the number of five, are navigable by small craft for a considerable distance, and in the absence of roads form valuable though still very imperfect means of inter-communication. Thus, commencing in the north, we have, to the east, the *Tumen*, which takes its rise in the Paik-tou-shan (White-headed Mountains; white from tufa, not from snow), the peaks of which go up to 8,700 feet, and in conjunction with the Yalu forms the boundary between Corea and Manchuria, and in the last eleven miles of its course the boundary between Corea and the Russo-Manchurian province of Primorsk, the Tumen falling into the sea to the south of Possiet Bay, 80 miles below Vladivostock. Then, forming the northern boundary on the west, we come to this, one of the most important rivers of Corea, and famous for the Japanese naval victory off its estuary in 1894—the *Yalu*, or, as it is called by the Coreans, Am-nok. At its mouth stands the town of Wiju, whence Chinese junks carry to China the timber rafted down the river, cut in the unexhaustible forests of the White-headed Mountains, in which the river has its source. This mountainous northern frontier was in old times set aside as a pale or neutral ground between China and Corea, and no settlers from either side were permitted to enter it, much less to clear any of the land and engage in farming. A road passes through it across Liaotung to Peking, over which travelled the Corean tribute-bearers, the site of whose former encampment in the Tartar city of Peking is now covered by a brand-new two-storied European brick building, the home of the resident European-garbed Ambassador from the now styled Emperor of Corea to the Peking Court. This ‘neutral ground’ and the wild slopes of the White Mountain are the resort of mounted bandits, tigers, and leopards, who have harassed impartially both sides of the border ever since the buffer land was established by agreement with the Mings after the sub-

sidence of the cruel Mongol invasion in the thirteenth century. The Korean province of Phyeng-an adjoining is famous for its ginseng, the fanciful root in such demand in China as an aphrodisiac that when of the right quality, in which the resemblance to the figure of a man (gin-seng = man-born) is unmistakably traceable, it is worth, the wild £3, and the cultivated £30, per ounce.

Below the Yalu, the Tai-dong river, upon which is situated the ancient capital, Phyengyang, also takes its rise in the high coast range to the east. Phyengyang, a walled city beautifully situated on a rise on the right bank of the river, which is navigable thus far at high water, about 40 miles from its mouth, in the centre of one of the largest valley-plains of the country, and surrounded by a fertile soil of stoneless alluvium, was formerly the richest and most luxurious city in Corea. In 1894 it was the scene of a Japanese victory which decided the fate of the war, when the flower of the Chinese army was mown down by a circle of artillery fire with which the Japanese had surrounded the unfortunate Chinese—much as the Germans, twenty-four years before, surrounded the French at Sedan; 5,000 Chinese perished, and 250 Japanese. But the Koreans were the worst sufferers at the hands of their two would-be protectors; Phyengyang was rendered desolate and its 70,000 inhabitants reduced to 15,000. Chinampo, situated in the estuary, was made a Treaty Port in 1897, and when the country recovers should prove a useful port of distribution for this rich region.

The river Han, upon which stands the capital, Seoul, is the most important of Korean rivers, being used for the carriage of produce grown in its watershed over a distance of 170 miles from its mouth, where is situated what is to-day the chief Treaty Port of the country, Chemulpo. Flowing through hilly country from its rise in the Diamond Mountains—the central nexus of the long coast range—at a distance of only 30 miles from the Japan Sea, to its mouth in the wide mud-flats that line the west coast on the Yellow Sea, the river-bed falls steeply, and so, when tide-water is left behind, presents an almost continuous series of rapids, which, however, are navigated with the toilsome patience that distinguishes the

Chinese boatmen under the like circumstances; but railways, now in course of construction under Japanese auspices, will ere long, as in China, supersede water carriage under such naturally difficult conditions. Little definite was known about Corea until after 1882, in which year the United States 'opened' the country to foreign intercourse and trade. Great Britain followed suit in 1884, and the establishment of Chemulpo as a Treaty Port was the consequence. Corea being, as we have shown, almost inaccessible by its one land frontier, may be treated to all intents and purposes as an island, all its present contact with the outer world being by sea: the trade with America, China, and the European world is carried on by steamers calling at Chemulpo; the ports on the Pacific coast, Fusan and Gensan (Wönsan), having relations mainly with Japan¹. The port of Chemulpo is little more than an open roadstead, but standing at the head of a bight, corresponding to the projecting peninsula of Shantung on the opposite coast of China, is fairly well sheltered, and forms a convenient port of call for the coasting steamers that navigate the Yellow and Japan Seas—as much as any port can be on a coast where the tide rises and falls nearly 40 feet. The tide reaches 56 miles as far as Mapu, the port of Seoul, 4 miles distant, above which the rapids render steam navigation impracticable.

The mountain range that forms the backbone of the country, the core of which is granitic with tertiary beds prevailing along the east coast, extends right through to the southern extremity of the peninsula, and may be said to terminate in the 'Corean Archipelago'—a crowd of rocky islands and islets that fringe the wide southern coast, among which are those forming the harbour of Port Hamilton, temporarily occupied by the British fleet in 1886-7, and the large harbourless island of Quelpart, with the high peak of Mount Auckland in its centre. As it approaches the southern end of the peninsula, the mountain wall (*quid* wall) disappears and spreads out fan-wise into gentler elevations of 2,000 to

¹ The Japanese are now constructing a north and south trunk line, which connects their settlement of Fusan with the China-Siberian Railway in Manchuria.

3,000 feet, making room for numerous rich cultivated valleys in their recesses; the dense forest which covers the northern border-land being here relegated to its proper place—the mountain tops and their higher slopes; and so this region is, agriculturally, the richest and most productive of the Empire. As we follow the west coast down south from Chemulpo, we arrive at another Treaty Port, Mok-po, situated at the mouth of the small river of that name, which also takes its rise on the western slope of the main range. So far, no trade has developed, and Mok-po has not yet been made a port of call by the coasting steamers.

Continuing round the coast, and passing the fine bay and harbour of Masampo, which lies east of the main ridge, a long narrow inlet between steep green hills, reminding one of Dartmouth in Devonshire, which this part of the country much resembles, we reach the Treaty Port of Fusan, situated in the south-east corner of the peninsula, 7 miles above the mouth of the Nak-tong river, which also takes its rise east of the main range, and is navigable by small junks for over 100 miles of its course. The port of Fusan is the chief *dépôt* for Japanese trade, and is now being connected with Seoul by railway, notwithstanding the mountainous country intervening. Leaving Fusan, no port is passed until we reach Gensan, the fifth and last of Corea's Treaty Ports, situated in a beautiful bay 2 miles to the south of the fine harbour of Port Lazareff, at the foot of an amphitheatre of magnificent mountains. Corea, with its long mountain range walling it in on the side of the Pacific, bears a certain analogy to Annam in the Indo-Chinese peninsula walled in by a similar range from the China Sea. Both coasts present long stretches wanting in harbours: in both countries the mountains in the central length of the range present a practically impassable barrier, and the inhabitants on either side carry on intercourse mainly by outflanking the barrier at its southern end. The thirteen provinces or countries into which Corea is divided are all more or less mountainous, although interspersed with many extensive valley-plains, extremely fertile, and producing magnificent crops without the need of irrigation or manure; this, together with the sunshine of a low latitude and a climate free from extremes,

seems to have produced an easy-going, apathetic people, never wanting the necessaries of life and so long isolated from the rivalry of neighbouring nations that all ambition or desire for progress seems to have died out from among them: an ideal condition according to that school of philosophy which deems content and resignation the secret of human happiness.

Situated midway between China and Japan, Corea seems to unite the natural advantages of both without their drawbacks, much the same as its mountains with their basalt and lavas combine the volcanic structure of Japan with the granite and sedimentary limestones prevalent in China. The continental phenomena of prolonged droughts and overwhelming floods, from which the adjoining mainland is never entirely free, are happily unknown in Corea, while the volcanic eruptions that periodically disturb the equanimity of the neighbouring island empire are equally non-existent. Corea derived her civilization from China at a period (Tang and Sung dynasties, seventh to twelfth centuries) when the great empire was at the zenith of her culture, and at the time stood far in advance of any other country in the world in progress and refinement, and it is no discredit to the Coreans that the civilization of China was and is the ideal by which their own is guided. The fact that this civilization, like all preceding ones, bore within itself the germs of its decay the Coreans as a people have not yet realized, notwithstanding the utter collapse of the Chinese on their soil: but in the East, military collapse does not carry with it the disgrace with which in Western countries it is associated, few Asiatics being sufficiently educated to see that war is the supreme test of a nation's virility, and that corruption and indolence spell the rationale of defeat, while the teaching of the old Chinese philosophers has succeeded in thoroughly discrediting the military profession. Japan, on the other side, adopted her civilization from China, mainly through Corea, and has been driven by the comparatively limited area of her cultivable land to more strenuous exertion than is needed in a country fertile throughout. The feudal system, which ceased in China B.C. 250, continued in full force in Japan until A.D. 1868, and upheld the martial ardour of her people much as did the long continuance of the same system

in the West. That the Coreans should have preferred to the activity of Japanese methods the philosophical repose of China, and paid voluntary tribute to the great empire that has left them in peace since the Mongol invasion in the thirteenth century, is not surprising. Japan, partly driven to find new fields for the expansion of her people, partly urged by ambition to reform a government in decay, has made many attempts to conquer the country, all of which have proved abortive, more through the sullen resistance of its people than in consequence of the assistance given by China to her feudatory.

It is noteworthy that Corea, which has never proved herself capable of maintaining her independence, should in the first instance have been tributary to Japan, and that, if Japanese accounts are creditable, as far back as A. D. 202. The invasion of the famous empress Jingo, in the third century, led to the quiet submission of the three kingdoms which then divided the peninsula between them, and to their payment of tribute, which, as usual in the East, was probably purely nominal. It was under another empress, the notorious Wu (A. D. 655-705), concubine of the second and third emperors of the great Tang dynasty, that Corea was again invaded—this time by the Chinese, who conquered the northern kingdom and fortified its capital, Pingan, whereupon a revolt led by a Buddhist priest and assisted by Japanese succeeded in driving them out. But the empress Wu was not to be beaten: she again overran the country and drove out the Japanese, and from this time on, until 1894, Chinese ascendancy was completely established in Corea. From this time, too, dates the introduction of Corean civilization into Japan; many revolted Coreans fled with the Japanese, who at that date (A. D. 700) had hardly emerged from a state of barbarism, while the Coreans then possessed a culture and art, developed from Chinese sources, which was then probably in its zenith: the Japanese proved, as ever, willing learners and soon left their teachers far behind. It was not till early in the tenth century that the three kingdoms in Corea became united under one crown: it was at this period that Buddhism was formally established as the religion of the country and the national capital fixed at Songdo.

Songdo stands in the midst of a rich valley-plain, and still maintains much of its ancient splendour as the second city of the kingdom or, as it now is, empire: it is situated about 50 miles north of the actual capital, Seoul, by which it was superseded in 1392. Songdo is now the centre of the lucrative ginseng trade, the cultivated plant being grown in the vicinity and packed for export in the city under government supervision.

The Coreans were now left in peace for a couple of centuries until, in A.D. 1218, the Korean king acknowledged himself a vassal of Genghis Khan, but failed thereby to escape war: quarrels with the great Khan's envoys resulted in the invasion of the country in 1235, when the land was laid waste in customary Mongol fashion and a heavy tribute exacted from the people. In the following century, the degeneracy of the Mongol government in Peking gave opportunity for the Coreans to revolt; their successful leader, now surnamed Taijo or Great Ancestor, founded, in 1350, the dynasty of Ni, which still nominally rules the country: as soon as the Mongols were finally expelled from China and the native dynasty of Ming became fully established on the Dragon Throne under Hungwu in 1368, the Coreans, who have always held the Chinese Empire in the greatest respect, while unable to submit to the barbarous Mongol usurpers, voluntarily renewed their vassalship to the new dynasty: Buddhism was disestablished in favour of Confucianism and competitive examination for all government offices introduced. The Ming dynasty, already menaced by the growing power of the Manchus, was nearing its end when, in the reign of the Buddhist-favouring Chinese emperor Wan-li (A.D. 1573-1620), the great Japanese invasion of Corea under Hideyoshi took place, A.D. 1592. A long two hundred years' peace had totally unfitted the Coreans for resistance, and scarcely any worthy the name was offered. The Japanese, in whose suite was a Jesuit priest named Cespedes, who had aided the Japanese in preparing artillery, and who joined them in the hope of christianizing the Coreans, had an easy walk-over: the non-resistance of the Coreans availed them little, however, against the barbarous inhumanity displayed by their conquerors¹. The Japanese landed at their ancient

¹ In Kioto, Japan, is still to be seen a mound, surmounted by a pillar,

trading port, Fusan, and marched northwards right through the country, capturing Seoul and later Pingan, which proved no city of refuge for the Corean Court, who, together with the bulk of the inhabitants, were captured in the city and mostly put to death. The Chinese now at last accepted their responsibility as protectors of Corea in earnest, drove the Japanese back as far as Seoul, where these fortified themselves, but ultimately withdrew on the signing of a treaty of peace, by which Japan was to be allowed to retain Southern Corea while accepting Chinese suzerainty. But this treaty was haughtily rejected by Hideyoshi, and a second invasion was organized. This met with little success; the Chinese were victorious both on sea and land: in 1598, while the remnant of the Japanese forces were closely hemmed in near Fusan, Hideyoshi died; his successor, Ieyasu, who had previously been an opponent of the war, withdrew from the contest, and Corea was once more left in peace. It is characteristic of the Coreans that history does not report their having taken any part in the war which had desolated their country during seven long years, nor of their having been in the least consulted by either side in the various conventions and treaties entered into during its course. After the Japanese had thus been successfully driven out by their Chinese protectors, the Coreans were henceforth enabled to enjoy undisturbed for nearly three centuries the quiet isolation which is all they ask for, but which they have never had the strength to defend.

The mineral resources of Corea appear to be fully as great, in proportion to her size, as are those of the neighbouring mainland, and probably greater than those of volcanic Japan, while less rich than those of the adjoining region of Manchuria. As in China, gold-washing is carried on in the beds of the rivers throughout a large extent of the country, while coal and iron are mined on a small scale in many districts; but, as the Corean officials are in accord with Chinese officials in their opposition to mining enterprise, until quite recently all mining was carried on surreptitiously and mainly by poor coolies under which lie buried the ears of the victims of the Corean war, brought to be laid at the feet of Hideyoshi as evidence of his generals' success.

without capital. The country has still to be carefully surveyed. So far only two foreign companies appear to have succeeded in obtaining concessions of value from the Korean Government; of these, one is doing exceedingly well, working a quartz reef in the Phyenyang district by up-to-date American methods and turning out gold in annually increasing quantity: their success should prove an encouragement to wider exploration.

CHAPTER XVI

THE BUFFER KINGDOM : SIAM

SIAM, the last of the continental countries on our list, whose frontier until recently marched with that of China, and whose people are one in which the Mongol type of the inhabitants of the countries hitherto described fades off into that of the Hindu-Malayan races to its west and south, forms the outermost extension of the wide region abutting on the China Sea and that has Chinese civilization as its base, in contradistinction to the races of Aryan or Iranian type that people the western half of the Eurasian continent, in which civilization developed simultaneously but independently from the early Graeco-Phenician inhabitants of the shores of the Mediterranean. The contrast in mental type and consequent modes in which the phenomena of mind and matter are regarded by the Mongol¹ and the Aryan, is as marked as is that of their physical conformation; the typical distinctive feature of which, in the Mongol, is the bridgeless nose with wide flattened nostrils, the prominent cheekbones and retreating forehead, contrasting with the aquiline nose and dome-shaped forehead of the Aryan. Holding this main distinction in view, the Malays, like the Japanese, must be classed with the Mongol division of humanity, to which, likewise, the Shans and Siamese undoubtedly belong, although a certain admixture of Aryan and Hindu blood is apparent among them, which may account for their greater receptivity of western ideas and less subservience to that

¹ We have used this term throughout for want of a better—not in its literal sense, but as descriptive of the typical features of the Eastern Asiatic, from the Esquimaux in the north to the Malay in the south (as well as of the North-American 'Indians'). To speak correctly, we should call it the *Chinese* type. The Chinese are the oldest living homogeneous people and a pure race with characteristics entirely their own, the admixture of Aryan stock (supposed to have been brought by the Chows somewhere in the second millennium B.C.) having been sufficient to introduce their culture and colour the language, but insufficient to affect the physical and mental idiosyncrasy of the aboriginal Chinese inhabitants.

Chinese philosophical teaching, which has been at once the glory and the bane of the neighbouring nations. We have seen in the case of Corea how a naturally capable race holding an exaggerated reverence for their Chinese teachers has, like China, lapsed into a condition of self-satisfaction and consequently arrested progress without, at the same time, having acquired Chinese devotion to work, which seems to be an hereditary instinct in that remarkable people. To the mingling of blood, due to the accident that the original Shan tribes from the north, when they quitted China and gradually descended the valley of the Menam, came in contact with Hindu and Malayan immigrants from the west and south—these latter themselves having further a strain of negritic blood in their veins—may be attributed the fact that the Siamese have escaped the stagnation into which the Far East generally has sunk. The Siamese of to-day, as represented by their ruling dynasty, notwithstanding the Buddhist education of the people still prevailing and their devotion to its soporific teaching, show an adaptivity to Western ideas which the many Europeans who have made their home in the country, and so are justified in forecasting its future, hope and expect may enable the Siamese to preserve their independence; their progress in orderly administration—assisted by a wise employment of competent European advisers—while hardly rivalling that of their Japanese compeers, with whom, both in appearance and mental characteristics, they show considerable affinity, is leading them to follow in the path hewn out by Japan, although necessarily at a considerable distance.

We have named Siam the 'Buffer Kingdom,' inasmuch as by the Treaty of 1896, whereby all Siamese territory east of the Mékong river was ceded to France, the independence of the Menam valley being at the same time placed under the joint guarantee of France and England, Siam became a treaty-defended buffer state between British and French territory in the Indo-Chinese peninsula. Thus the kingdom of Siam now separates British Burma from French Indo-China, in all but a narrow district in the north where the possessions of either country abut on the Mékong, the line of that river forming the boundary. The tacit acquiescence of the British Government

in the occupation by the French of the eastern half of the original Shan states, Kiang-hung and Kiang-keng—which, as dependencies of Burma, reverted of right to Great Britain upon her annexation of Upper Burma in 1885,—resulted in the frontiers of the two empires being brought together for a distance of nearly one hundred miles in a north and south line; the above-mentioned, now annexed, Shan states intervening between Siam and the Chinese province of Yunnan. The Shan state of Kiang-tung (meaning, East of the River) lies east of the Salwin and between that river and the Mékong; it was originally conquered by the Burmese from Siam and now belongs to Britain. East of the Mékong again, is the Siamese Shan state of Luang-prabang, now annexed by France; thus the Siamese are now cut off entirely from their ancestral Shan dominions and are totally separated from China. The Laos territory south of Luang-prabang, on the east bank of the Mékong down to the Cambodian frontier, has likewise been ceded by Siam to France. French cartographers go still farther and mark off in their maps the whole of Eastern Siam lying to the west of the Mékong, outside of the actual Menam valley—more than half the still remaining area of the country—as French or in the French sphere; whereby the Siam of to-day is restricted to the valley which debouches at Bangkok, and to her strip of settlements, known as Lower Siam, in the little-visited northern part of the Malay peninsula. Excluding these latter, as also the Korat plateau as being in the French sphere, all which, as now exploited, possess little economical value, we find that Siam proper, i. e. the valley of the Menam and its affluents, contains only an area of about 96,000 square miles—little more than that of the one island of Great Britain; but this limited area is the richest and most valuable of its size in the whole Indo-China peninsula. The region of the Menam comprises a gentle slope extending north and south a distance of about 640 miles, by 150 in width—from Kieng-hai on the Burmese frontier to Chantabun (at present occupied, but under promise of restoration, by the French) on the gulf of Siam in the south. To make the distinction clear, we would define the Menam valley as Inner Siam, and the outlying portions of undeveloped country still marked Siamese in our

British maps, as Outer Siam. Outer Siam will then consist of (1) the French sphere so called west of the Mékong, 100,000 square miles; and (2) the southern extension into the Malay peninsula—the British sphere so called, 50,000 square miles—bringing up the area of all Siam to a total of 246,000 square miles. This vast territory, greater by 40,000 square miles than the areas of France or Germany, is credited with a scanty population of some 5,000,000 only, thus distributed:—Siamese proper, 1,700,000; Chinese, 700,000; Malays, 600,000; the balance of 2,000,000 being composed of Laotians with immigrants from Burma, India and Cambodia; also 1,000 Europeans, of whom about one-third are British. We thus see that, although the capital, Bangkok, contains half a million inhabitants, and the cultivated rice delta, in the midst of which that city stands, is densely populated, the bulk of the country is still unreclaimed jungle. Owing to the difficulty of clearing this jungle,—the deadly malaria that attacks the pioneers who attempt to clear it, the unhealthiness of the tropical swamps, and the enervating tropical heat,—the huge Indo-China peninsula remains still, throughout the greater part of its area, the undisturbed haunt of wild elephants and the other usual denizens of the jungle, man having only really occupied the deltas of the great rivers, starting from which, the pressure of population in these limited areas (compare like conditions in the Tongking deltas) is slowly forcing the descendants of the original pioneers back into the jungle which their ancestors from China traversed to reach these deltas. For the reasons above given, this retrograde advance proceeds slowly, the energetic Chinese immigrants doing the bulk of the work. These arrive from the salubrious, cleared, hilly country of China proper, bringing their energy and fine physique into play to develop these Indo-Chinese countries commercially and agriculturally, until they too, as the result of intermarriage and the enervating climate, subside after a few generations into native conditions; not, however, without having infused much of their native vigour into the population, as is notably the case in Tongking—the part of Indo-China most easily accessible from the Chinese frontier. The whole of China proper has, as we have seen, been thoroughly reclaimed and the popula-

tion has nearly doubled during the last century; hence China suffers from over-population, the natural outlet for which is in the surrounding uncleared countries. And we see the Chinese do emigrate freely into the Indo-China peninsula, and the only sure means of further developing the country is in facilitating this immigration. The small fraction of the peninsula that lies under British supervision—the Federated Malay States,—with a total area of 26,000 square miles, contains, in a gross population of 600,000, 303,000 Chinese, and is being rapidly developed accordingly. Siam contains 700,000 Chinese, but French Indo-China, with an area of 256,000 square miles, has only 133,000, and these mostly traders and artisans. Chinese immigration is discouraged by the French, who seem to fear Chinese competition and so place arbitrary restrictions upon Chinese labour, badly as the country needs it. In French Indo-China, as in Siam, we find, outside the rice deltas, neither population nor agriculture; seven-eighths of the huge area is virgin forest and swamp, waiting for the hand of man to bring it into cultivation.

That the ancestors of the present Siamese people came from China is shown by the prevalent Mongol type; the fact that they descended gradually from the Yunnan plateau, making their way by the Menam river—the only available road through the dense tropical jungle,—may be traced in the successive establishment and subsequent abandonment of their capital places as they advanced seawards. They thus occupied successively Sawankalok, at the foot of the hilly Laos country and 300 miles distant from Bangkok; Pitsunalok, 50 miles lower down at the foot of the mountain of that name; then Ayuthia, 40 miles above Bangkok, in 1350, and finally Bangkok itself in 1769. The Siamese have no elaborate written annals, such as the Chinese possess of the past twenty-five centuries of their history, and so few dates are obtainable previous to European acquaintance with the country early in the sixteenth century. All we know for certain is, that the Siamese established their capital in Ayuthia in A. D. 1350, from which date trustworthy Siamese history may be first said to commence. Mr. Warrington Smyth, in his delightful book, *Five Years in Siam* (Murray, 1898), tells us that tradition

makes Lopburi, now over 100 miles inland, a seaport, where the tide reached as late as the ninth century, while at the present day it does not flow beyond Ayuthia. 'The depth of the marine sands formed below the thick covering of river deposit shows that the sea occupied the site of Bangkok at no distant geological period.' So fast is the delta developing seaward that Professor Keane ventures to prophesy that the time is approaching when the narrow inlet of the gulf of Siam will be entirely filled in and men will walk dry-shod from Tenasserim to Chantabun. Though the time in question must be taken as geological time, still the fact is undoubted, that the ancestors of the Siamese remained for a long period in the uplands of the Menam valley, before the river silt had sufficiently raised the swamps of the delta to admit of their clearing and conversion into agricultural land. The consequent metamorphosis of a hill people cultivating dry crops and addicted to the chase, into a race of swamp-dwellers toiling in paddy-fields under a tropical sun, may well account for the degeneration of the Siamese; from being in ancient times an active, martial people who fought the Burmese with success, and wrested Southern Siam from the once powerful kingdom of Cambodia, the Siamese of to-day are one of the most indolent and least energetic of any of the civilized tropical peoples. They are content to let the Chinese immigrants do all the hard work in the cities, and even to supplant them in the agricultural development of the country, while work in the mines is carried on by immigrants from Burma and the Laos uplands. Rice is so cheap and plentiful under an unfailling system of natural irrigation, the nutritious banana can be had for the plucking, while the climate necessitates a minimum of outlay for clothing and shelter, that, for a people with no artificial wants, real exertion is uncalled for. They lack the ambition of the Chinese to better their condition, and thus the inertia of the masses, coupled with the general corruption and venality of the officials, would long ere this have rendered the Siamese people an unresisting prey to their powerful neighbours but for the growing enlightenment of the ruling dynasty and the reliance of these upon outside support.

The whole of Indo-China may be regarded geographically as

one country, shut off from the rest of the continent by rough mountain barriers, and possessing marked physical features of its own; of this country Siam forms the heart, lying between Annam on the east and Lower Burma on the west. Burma, Siam, Cochin-China, Annam, and Tongking form together a second peninsular extension from the Tibetan plateau parallel with the Hindustan peninsula farther west, and of about the same area; the area of British India, exclusive of Burma, being 1,500,000 square miles, while the actual peninsular portion, viz. that lying south of the tropic of Cancer, occupies more or less one-half of this area—say, 750,000 square miles. On the other hand, the Indo-Chinese peninsula, of which Siam forms the centre, occupies an area of just 734,000 square miles. Of the peripheral lands dependent from the central Asian nexus of the Pamir and the high Tibetan plateau, Hindustan, Indo-China, with China itself, all slope to the sea-level in the south and east; in the case of India by an abrupt descent from the Himalayan wall to the valleys of the Indus and the Ganges; in the case of China and Indo-China by a series of steps, providing intervening tropical and sub-tropical plateaux, ranging from the high, cold, barren, central table-land down to the hot tropical deltas formed by the alluvium derived from the table-land itself. Hence these rivers, by means of whose extension from the table-land southwards, the alluvial plains of Siam, of Cambodia, of Tongking, as well as of Canton and of Shanghai, have been created, are all in their upper courses obstructed by formidable rapids and yield no easily navigable highways outside the limits of their respective deltas. This is especially noticeable in the larger rivers of the Indo-Chinese peninsula; the Mékong in Cochin-China and the Red River in Tongking have disappointed the expectations originally formed of them as practicable roads to the country behind their deltas, the steep slope of their beds rendering their courses a succession of falls and rapids until the lowlands are reached at comparatively short distances from their mouths. On the other hand, the Menam, the river of Siam, is more fortunately situated, and, although the country it serves will bear little comparison in value with the highly-developed provinces of China proper—served by

the Pearl River of Canton and by the mighty Yangtse in the north,—still, in proportion to its size and in relation to the country it drains, it compares not unfavourably with these great arteries of commerce and, in this respect, is greatly superior to its sister rivers in Indo-China. The Menam, to Siam, the 'Mother of waters,' together with its tributary the Meping, has its source in the 'Shan' uplands—the first downward step from the Yunnan plateau (itself an extension of the Tibetan)—and descends thence into the lowlands of Central Siam, which continue to be raised and fertilized by means of its annual overflow. At the same time it furnishes throughout the year an unhindered highway from Chieng-mai to Bangkok, a distance of over 400 miles. Siam thus possesses in its great river, with its affluents, a means of communication from its northern to its southern frontier by which up-country produce is cheaply conveyed to the maritime port of Bangkok from every part of the rich Menam valley; and so the country hardly feels the lack of good land roads, such as the rulers of Siam in company with those of the neighbouring states, and of the Far East generally, have never cared to construct. The Menam is the one large Indo-Chinese river whose course lies entirely within the limits of the peninsula. Its source is in the extreme north, on the borders of the Shan state of Kiangtung, now a dependency of British Burma, near the Siamese town of Kienghai, having on the one side the valley of the Mékong and that of the Salwin on the other; low ranges on either hand shutting off its valley from the basins of its larger neighbours. The Menam reaches the gulf of Siam through three channels; of these, the easternmost, on the banks of which Bangkok is built, has the greatest value to commerce, although its mouth is obstructed by a bar giving a depth of 12 feet at high and of 4 feet only at low water. Hence large sea-going vessels with cargoes for Bangkok, distant 38 miles from the mouth, must discharge in the open roadstead—a roadstead, however, which offers a fairly well-sheltered anchorage, owing to the configuration of the bay into which the river discharges. This bay is a bight 60 miles square, which forms the head of the Siam Gulf; and it is notable that this gulf (measuring 500 × 250 miles) is, unlike its neighbours,

the Bay of Bengal and the China Sea, never visited by typhoons or other heavy gales. Throughout the greater part of its course the Menam is fringed with forest trees, behind which the low-lying rice- and sugar-fields are regularly flooded during the summer inundations, by means of which fresh fertility is added to the soil and the land is slowly raised from the condition of the mangrove-swamp in which the reclamation from the sea of these tropical deltas originates,—in short, the Menam is to Siam what the Nile is to Egypt. Enthusiasts, mostly French, bent upon ‘tapping’ the supposed wealth of Western China by way of Indo-China, seeing the failure of the once-belauded routes by way of the Mékong in the south or by the Red River in the east, have now turned their attention to the valley of the Menam; and certainly, if an outlet from Yunnan southwards be ever opened up and a trade route through Indo-China to the southern seas established, then Siam by means of its great river affords the most promising route to the supposed El Dorado. When this short cut has been made and the isthmus of Kra pierced, Bangkok may equal Singapore and surpass Rangoon in commercial importance, and it is the prescience of this future that leads Siam’s French neighbours to aspire to her possession. Siam, herself, needs the development of the land she has and the spreading of the congested population of the delta around Bangkok over the sparsely-peopled jungle-covered country of which three-fourths of the kingdom still consists, rather than the making of a new through route across her territory. We have seen that the population is largely Chinese; these energetic immigrants do the bulk of the trade, work the valuable concessions, such as the opium and gambling ‘farms’ from which the Siamese Court derives the chief of its revenue, while the demoralized Siamese population live only from hand to mouth, notwithstanding the great natural wealth of their country. It is due, however, to the present enlightened ruler to state that, since his visit to Europe, many improvements have been introduced into the administration; competent European counsellors are more heeded than of yore; while steps are being taken gradually to abolish the opium and gambling ‘farms,’ the sums furnished

by these being replaced by other more legitimate sources of revenue. Canals are being dug, railways are being built, new land is being fast reclaimed; the people are being trained to work, and most resident Europeans regard the future of the kingdom as assured, provided the Siamese are left in peace to carry out the reforms so auspiciously begun.

We have seen that the Siam of to-day is little more than the one valley of the Menam. This valley is limited on the west by the mountains that bound the British province of Tenasserim and the valley of the Salwin in the north; the eastern boundary of the valley-plain is formed by the foothills of the Korat plateau and the Laos country which drains to the Mékong in the east. But even of this valley a large portion still awaits development by man; the great alluvial plain to the north-east of Bangkok is to-day 'a lonesome waste of swamps and grass' extending from the banks of the Menam to the head-waters of the Bangpa-kong, which flows past the town of Petriu and discharges into the bight of Bangkok some thirty miles only to the east of the mouth of the Menam. Petriu is connected with Bangkok by one of the cross canals, or 'klong,' which traverse the lower delta of the Menam from east to west and also connect Bangkok with Ratburi, situated on the Meklong, a river which comes down from the north and drains the eastern flanks of the long Tenasserim range and discharges into the sea at the upper western corner of the Bangkok bight. To the north of the Petriu cross 'klong' lies the alluvial swamp above-mentioned. A concession has now been given to a British company to drain this swamp and render it fit for settlement; canals are being dug and the land is being raised and drained, but the company has to struggle with the official obstruction commonly met with under Asiatic governments, and its title to the reclaimed lands is still a subject of arbitration. Proceeding farther north-east, a distance of some ninety miles, and following up the valley of the Nam-sak, the easternmost affluent of the Menam, we reach the Korat plateau, which lies at a level of about 600 feet above the sea and is cut off from the rest of the world by the forest of Dawng Praya Yen,—a Siamese Terai,—a dense jungle, impassable in the rainy season, but through which a trail leads, practicable in winter, by which

goods are conveyed to Korat by elephants and ox-waggons from Saraburi at a cost of £10 per ton. Saraburi stands on the left bank of the Nam-sak, by which there is direct water communication with Bangkok, 90 miles below. A railway is now in course of construction between Bangkok and Korat, traversing the Dawng Praya Yen; this dreaded obstruction has fully maintained its evil reputation; during the first five years occupied in clearing the forest and constructing the road-bed, the lives of no fewer than 5,000 coolies and 36 European superintendents were sacrificed;—such is the price demanded by the 'Nat' or *genii loci*, for invading their precincts and for opening up new work in tropical deltas. The plateau of Korat itself, when reached, is by no means a promising country; in the rainy season many parts are flooded to a depth of several feet, while in the dry season the dust is all-pervading. The town of Korat is situated upon the head-waters of the Se-mun river, which flows 200 miles to the eastwards and falls into the Mékong after passing the Laos town of Ubon. All these mellifluous sounding so-called towns prove to the traveller to be little more than collections of Attap hovels—clearances in the jungle supporting a few thousand inhabitants;—the Mékong again forms a hardly passable barrier to the plateau in this direction.

The Menam, after rising in the extreme north of Siam, in the heart of the Chieng-mai plateau, flows through an unbroken plain from Paknam-po downwards, up to which point, 105 feet above sea-level, large boats ascend from Bangkok, a distance of 150 miles, at all seasons, without difficulty. Paknam-po is situated at the junction of the two rivers Nampo and Meping, which here unite to form the Menam, both having their sources in the Shan country above. Beyond Paknam we enter the broken country and the great teak forests which, after rice, form the main source of Siam's wealth. At Paknam the up-country navigation proper may be said to commence. Here, Mr. Smyth tells us, 'the character of the two rivers is quite distinct.' The Meping from the west rushes down in a shallow torrent over its sandy bed, while the Nampo comes gliding gently through its deep narrow channel, past the groups of sharp-gabled floating houses that cluster along its banks,

bringing the evergreen floating weed which one meets in quantities below. The Meping is sudden and capricious in its movements, and in the flood season it rises and falls irregularly, changing its level to an extent of 4, 6, or 8 feet in comparatively few hours. These rises and falls, which occur sometimes as often as three or four times in the season, make the raft work uncertain and even exciting. The Nampo, on the other hand, is constant and reliable; during and after the rains its rise is sure and regular, until high water is reached in October and November, and then the fall begins inch by inch, and gradually foot by foot it sinks to its bed again. Thus, whereas floating houses avoid the capricious stream of the Meping, the Nampo is for half a mile the main street of the town, and the rice-boats and the shops and houses lie thick along the banks, moored to the great teak mooring-posts, which by their height attest to the amount of the yearly rise of the river.

The secret of the river lies in the great overflow swamps and backwaters about Pichit (60 miles higher up and 130 feet above sea-level), which act as safety-valves to it, as the Talé-sap on a larger scale does to the Mékong in Cambodia; and as do the great backwater lakes of the Lower Yangtse. With the rise of the floods these backwaters become vast inundated lakes, holding large bodies of water in reserve, and, as the level falls in the river later on, they slowly part with their store of water. Thus considerably does nature work to make the great yearly inundation of the Lower Menam plain gentle and beneficial, and to tame the angry water spirits into blessing instead of cursing. Old Turpin aptly says (*Histoire de Siam*): 'The Menam is to Siam what the Nile is to Egypt,' and on its yearly rise and fall depends the life of the people.

The Nampo may thus be regarded as the main river, and in most maps it is marked simply as the Menam. From Pitsunalok, one of the old capitals, situated 100 miles above Paknam, the fall in the river bed to the point of its junction with the Meping is under 50 feet, and, by the left fork of the Nampo which flows past Sachanolai, another of the early capitals, we ascend a farther 100 miles, almost up to the borders of the mountainous Shan country, where the bed is still only 200 feet above sea-level. On the other hand, on the Meping, the town of Raheng,

in the same latitude as Pitsunalok, stands 421 feet above the sea ; and Keng-pakwang, in the latitude of Sachanolai, at 600 feet. Above this point the river bed rises rapidly to Chieng-mai, another 100 miles north, which stands at an elevation of 900 feet above the sea ; hence we are not surprised to learn that between Raheng and Chieng-mai thirty rapids have to be negotiated, and the water traffic is confined to small craft and to the summer or rainy season. Chieng-mai is the northern capital and the second largest town in the kingdom, its population being estimated at 60,000 souls. Chieng-mai is noteworthy as being on the main road from the British port of Moulmein to South China, and, owing to the uncertainty of its water communication with Bangkok, its trade is mainly with Moulmein. Its inhabitants are largely Shan, who, their elevation affording them a more bracing climate, display far more energy than do the pure Siamese. Mr. Campbell (*Siam in the Twentieth Century*) states that the roads around Chieng-mai are more developed than are those round Bangkok itself, and that there are over 400 bicycles in the place. When the railway uniting Chieng-mai with Bangkok is built, the former, which is now the centre of a great teak and cattle trade, bids fair to rival Bangkok, while its trade will then probably be diverted from Burma to the Siamese capital, its natural outlet.

The great teak forests of Siam abound chiefly in the hill country surrounding the upper sources of the Menam, and descend into the plain as far south as latitude $13^{\circ} 50'$, while in the far less accessible Mékong valley they only reach the latitude of $17^{\circ} 50'$. The logs are floated down the Menam, and four years elapse from the time they are cut to the time they are ready for shipment in Bangkok ; hence a large capital is invested in the business, estimated at about £1,000,000 sterling, with a resultant export of from 40,000 to 60,000 tons of an annual value of £200,000 to £260,000. The Siamese Government has recently imported forestry officials from Burma, with the result that stringent regulations are now enforced with the view of arresting the reckless destruction of the forests, and whereby the trade is being thrown into the hands of large capitalists, of whom the Borneo Company and the Bombay Burma Corporation are the most important.

To the east of Chieng-mai lies the plain of Chieng-kong, in the angle of the Mékong river where this runs east before again turning south—a plateau of 2,000 feet elevation. Across the Mékong, along its right bank, lies the higher plateau of Chieng-kwang, now French territory, with an elevation of 5,000 feet, with peaks rising to 7,000 feet and over. The Chieng-kwang plain is destitute of teak, the original forest having been partially cleared by its Laos inhabitants; in places where these clearings have been abandoned, grass springs up, in the dry season fires occur, the saplings of young trees, nature-sown, which have sprung up in place of the old forest, are destroyed, and eventually nothing but the long grass and bamboo survive the constant fires. In this way prairie land is formed on the site of the forests, which probably once covered the whole continent with the exception of the sand-wastes, and these are thus lost without recovery until the hand of man, by artificial planting, once more restores portions of the prairie to a semblance of their ancient condition; for the deep loam due to the annually decaying grasses of the prairie land is eminently suitable to forest growth, once man steps in to mitigate or abolish the fatal prairie fires. It is in the Chieng-kong district that occur the gem mines which seem to have acquired a reputation far exceeding their deserts. Mr. Warington Smyth, formerly Director of the Department of Mines in Siam, who was sent to report upon the sapphire-bearing ground in the early nineties, says: 'The crystals occur in the stream beds on the left bank of the river opposite Chieng-kwang, and the Shans had prospected with their usual patience for some years, and at length were rewarded by the discovery of a very fair sapphire-bearing gravel at a depth of from 12 to 20 feet, varying with the surface irregularities of the Hué or stream beds in which it lies. It is from 5 to 18 inches thick, and consists of a water-rolled gravel, with a large number of angular fragments of a particularly beautiful basalt, which sometimes decomposed into a soft bluish or (in some places) reddish clay, seems to be the origin of the gravel here, as in the other gem-bearing districts of Siam. The long, flat-topped hill, in which all the gem-bearing streams have their rise, seems to consist entirely of this rock, and it forms

the bed-rock under the gravel. . . . The basalts of the hills—the decomposition of which has produced the clay which is the base of the gravel, and which we found in all stages of decomposition, from hard, sharp-edged fragments to soft, yielding clay—was, I concluded, the matrix in which the sapphires were originally formed. And from subsequent observations in the Chantabun neighbourhood, I see, at present, no other possible hypothesis.’ After proceeding to the banks of the Mékong, Mr. Smyth adds, ‘At the Chiengsen boundary, we found what appeared to be regular granites, with gradations into gneissose and schistose masses, and into syenite and mica syenite. Coming down river to Huénam-ngau, we came on mica and shorl schists. . . . Below this are large rounded masses, of basaltic character, followed by a series of altered basalts standing up jagged and sharp from the water, and cutting the feet and hands like knives.

Situated in the same angle of the Mékong, is found a series of volcanic vents, each about 200 yards long by 80 yards wide, and rising about 200 feet above the plain. ‘Smoke and free sulphuric acid rise in small quantities, the ground is very hot, and a couple of feet down the cracks are at a red heat, and a bamboo thrust in will take light.’ The action seems local, and does not appear to have largely influenced the geology of the neighbourhood. What follows emphasizes the similarity in the physiography of the Mékong and Yangtse rivers, and might well pass as a description of the great Wushan gorge of the latter, though the courses of the two rivers lie at right angles to each other, and lead through widely separated regions of country: ‘The magnificent scenery of the river between Chieng-kong and Luang-prabang seems to be largely due to the dislocations of the schists, which have been subject to powerful pressures, and, in places, present remarkable contortions. Specimens from these rocks are chiefly silicates of magnesia and iron, with sometimes alumina and iron. . . . The worst rapids always occur in the neighbourhood of these rocks, both in the Mékong and the Nam-u. Farther east, mica schists predominate. The high peaks, towering 5,000 feet above the river, which give it such a sombre appearance, are generally of the very extensive limestone series. They present

tremendous precipices on some of their sides, and their outlines are particularly bold. Seen against some of the lurid evening skies which accompanied the first heavy thunderstorms of the season, while the crashes pealed and echoed off the cliffs of the narrow valley, they completed a scene which convinced me the people had certainly every reason to believe in spirits' (compare the Witches' Gorge on the Yangtse!). Some miles above Luang-prabang the large and important tributaries of the Nam-u and Nam-suang enter the Mékong, whose volume at that town is about a third greater than at Chiengkong, where Mr. McCarthy found it to discharge about 42,000 cubic feet per second in low-water season. The clear transparent water of these tributary rivers forms a strong contrast to the brown, sediment-laden water of the Mékong; as do the like tributaries of the Yangtse flowing through the high limestone mountains that divide the Chinese province of Hupeh from that of Szechuan.

'A glance at the map shows the geographical advantage which the gulf of Siam has over the Mékong as an outlet for the trade of Indo-China. To attain the latitude of Ayuthia, 60 miles from the sea, by the Mékong route, a boat-journey of nearly 400 miles and a transshipment of goods over the great Khong barrier must be accomplished. Utaradit, which is not 20 miles from the parallel of Chieng-kan, is only 250 miles beyond Ayuthia, and can be reached in three weeks without transshipment. On the other hand, Chieng-kan is 500 miles from Khong, and separated by 90 miles of rapids. The splendid elevated plateau of Tung Chieng-kum and Chiengkwang is the only portion of the new possessions of France which does not naturally communicate with Bangkok.'

West of the Menam valley, and between it and the British province of Tenasserim, lies the province of Rachaburi. This province is formed out of the valley of the Meklong which drains the eastern flanks of the dividing Tenasserim range, and flows from due north, parallel with the Menam, into the sea past the town of Ratburi, the capital of the province, situated 20 miles from its mouth. Ratburi is reached from Bangkok by one of the cross 'klong' uniting the two rivers—canals built in the palmy days of the kingdom,

but which are now in a sadly neglected condition, the through traffic having often to wait for spring tides before the shallow canal-boats can make their way through them. As fed from the streams of the axial range, which is built up of granites, conglomerates and sandstones 'which have become distorted and metamorphosed in magnificent confusion along its flanks,' the Meklong presents itself as a clear river running over a sandy bottom. The steep incline of its bed interferes with the navigability of the river, which flows through a well-populated country, rich in rice-fields and fruit-plantations. 'The valleys of the Meklong basin are inhabited largely by the Mons, who are a fine agricultural people, the remains of the old Peguan Empire, cultivating their paddy, Indian corn, and fruit gardens along the banks of the rivers, and preserving their language and customs in the monasteries. Teak grows on the hill lines as far down as latitude $13^{\circ} 50'$, the most southerly point it is known to reach in Indo-China. But it has never been worked, owing chiefly to the smallness of the streams, which in the hot season are a collection of dry sand-banks and occasional buffalo wallows, and in the rains are mere rushing torrents.' Mr. Smyth adds: 'What struck me most in the great plain was the vast amount of rich open country undrained, and unclaimed except by the buffalo and the heron. . . . All over the Lower Menam delta the same thing is observable.'

Tin is mined in Ratburi, as in the long Malay peninsula to the south. 'The mines are situated on a series of alluvial valley-bottoms, draining eastwards from the granites of the main axial range. The tin-bearing gravel rests on a bed of clay slate which, in places, is much altered on approaching the junction with the granite. It contains enormous granite boulders, the constituent minerals of which may be seen in every variety of combination and every stage of decomposition. The overburden seldom exceeds 5 feet in depth, and the blue *Karang* (tin-bearing stratum) averages from 4 to 8 feet.' South of Ratburi extends the chain of states occupying the upper portion of the Malay peninsula from latitude 12° down to latitude 4° , from which point south to Singapore the remaining Malay states are under British protection. The

coast facing the gulf of Siam 'may be described as a succession of vast sweeping bays, separated from one another by bold, lofty promontories of limestone, whose ragged outlines stand far out into the gulf, detached and quite distinct from the main-range hills of the peninsula. . . . The shortness of the courses of the streams does not favour the deposition of rich soil, and, though the average rainfall is not as large as in most parts of Siam, the floods are sudden and violent, and the narrow strip of country between the mountains and the sea offers no facilities for the formation of rich, deltaic deposits. . . . The mineral produce of this part of the east coast has never been great; alluvial tin is known at Bangtaphan and up the Champawn river, near the junction of the central granites and the flanking Cambrian rocks, but so far it has never been worked commercially, as has been done in Ratburi to the north and Langsuan to the south. Gold is found, as throughout Indo-China, in alluvial sands, just sufficient in quantity (as in China) to reward the easy-going native. . . . Of the large outcrops of gold-bearing quartz reported by the "Gold-fields of Siam" Company, which was to have worked Bangtaphan as the biggest thing ever discovered, practically nothing is known, after an expenditure of a capital of £150,000.'



FIG. 33.—South-west Siam and the Isthmus of Kra.

On the west coast, facing the Bay of Bengal, Chinese immigrants have mined tin for many decades and are still doing

so to advantage. Of the island of Puket, or 'Junk-Ceylon,' Mr. Smyth writes: 'The whole island is a gigantic tin-mine. The granite of the hills is full of tin, the soil of the valleys is heavy with it. There is tin under the inland forests, and tin beneath the sea. In search of tin the indefatigable Chinamen have transformed the scenery. The valleys have been turned inside out, the hills have been cut away, the sea has been undermined, and the harbour has disappeared.' In the year 1894 the island produced 2,500 tons, but of late years, owing to the incompetence of the Government officials, neglect to maintain roads and water-claims or to keep the harbour open, the production is fast diminishing. The royalty payable to the Siamese Government is one slab of tin out of every six smelted. The hill-workings 'lie along the thickly-jungled granite hills which form the backbone of the island, and are a prolongation of the coast-range running south through Takuapa and Takuatung. The granite, when it comes in contact with the overlying sandstone series, becomes stanniferous, and the tin is scattered through its mass in small, black crystals as one of its essential ingredients. The nearer the junction the richer the granite, and in some of the deep cuttings good sections are exposed showing the granite-veins ramifying through the red, micaceous sandstone above it. . . . The general characteristic of the granite is its large grain and loose texture. It decomposes very rapidly on being exposed to the air. The sandstone referred to is often greatly altered near the granite; in places it assumes a schistose appearance, and becomes highly micaceous, in others it becomes almost assimilated with the granite. When first cut it is fairly hard, but a season's exposure transforms it into a clinging clay of a deep red, which adds greatly to the colouring of the stream-works, and contrasts gorgeously with the heavy green of the surrounding forest.'

The limestone islets off the east coast produce a large supply of the edible birds' nests, the costly luxury of Chinese epicures. 'The range over which these nests are found is extensive. From the gulf of Tongking to the Andamans, in the gulf of Siam, among the Mergui Islands (off the Tenasserim coast), and in the Malay Archipelago, wherever the steep-sided lime-

stone islands stand up from the water's edge, there the little swift, known as Peale's swiftlet (*Collocalia spodiopygia*), builds his shallow cup-like nest against the rock and in the caves. The silvery appearance of the nest and the absence of all but the finest threads and attachments make it look like a beautiful, white gelatine. Converted into soup it is like a tasteless vermicelli, although pronounced by Chinamen and Siamese as extraordinarily nutritious and strengthening for invalids. The collector can only reach them swinging in the bight of a rope, and he sweeps them down with the aid of a long bamboo.'

Our account of Siam would not be complete without mention of the famous ruins of Angkor. These are situated in the district of Siamrep to the north of Talé-sap = Sweetwater Lake. The boundary-line between Siam and Cambodia runs through this great backwater of the Mékong; the lake runs in a north-west and south-east direction for a distance of 90 miles, has an average width of 22 miles, and a depth of from 3 to 6 feet; in the rainy season its length is increased to 120 miles and its depth to 20 feet or more. The ruins have been frequently described and photographed; their chief features are their immense size and great solidity, especially of the stone-roofing. 'Here this wondrous construction is as sound to-day as the foundation on which it stands: it is this roofing which makes Nakawn Wat incomparable.' These 'Wat,' or monasteries, are supposed to date from the sixth century, and to have been commenced by Brahmin conquerors from India, and to have been continued as Buddhist temples after the conversion of the Cambodians to Buddhism a century later. This, with the adjoining districts of Battambang and Chantabun, was conquered by the Siamese from the Cambodians in 1795.

The early Siamese, when somewhere about the beginning of the Christian era they dwelt in the Upper Laos country, were known as the 'Thai' or 'Free'—a federation of free, self-governing communities; they were more particularly distinguished as the 'Thai noi,' or Inside Free, in contrast with the Shan who were known as the 'Thai yai,' or Outside Free (Chinese, Wai and Nei). In their advance down the Menam

valley some hundreds of years later, they would appear to have split in two the aboriginal inhabitants of the valley, so giving rise to two nations—the Kmer or Cambodians who were driven to the east, and the Mon or Peguans who escaped to the west; and the little we know of Siamese history is full of the wars with these two races on their borders. The Siamese still call themselves 'Thai' and are proud of the name; it is not a common coincidence that the one free, tropical people left in Asia should bear this name. The Siamese are an educated people in their way, as are their Laos and Shan neighbours: nearly all the boys enter a 'Wat' for education, and remain there from their eighth to their fifteenth year, rich and poor alike; 'The yellow robe of the monk is among the Laos like the scholar's robe at home; the "Wat" is his college, where philosophy and letters are taught and studied. The refinement of many of the men is largely due to its influence among them, when as lads they wore the yellow garment of the pupil.' The Siamese, both in language and civilization, exhibit their Chinese origin; if they have lost the distinctive Chinese virtues of perseverance and adaptability to hard work, they are free, on the other hand, from many of the repulsive habits and from the boorish behaviour to strangers which, up to quite recent times, distinguished the denizens of the Flowery Land. Their Chinese and Malay admixture gives the Siamese a certain physical resemblance to the Japanese, more or less noticeable in all the peoples of Indo-China, but which scarcely goes below the surface. This fact, together with their cordial manners and their liking for Western education and foreign improvements, has led some of their admirers to style the Siamese the Japanese of Indo-China; but they hardly deserve this distinction; the damp, enervating climate of the country renders them indolent and careless, and assuredly it is hopeless to expect a tropical people to be imbued with the vitality of a race like the Japanese, favoured with a fine sea-girt temperate country, free from the curse of malaria and re-joining in summer gales and winter snows; for the glory of the tropics spells the decadence of man.

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CHAPTER XVII

THE ISLAND EMPIRE : JAPAN

THE Empire of Japan comprises a chain of islands over 2,000 miles in length, which lie like a fringe along the shores of China, Corea, and Manchuria, and form a breakwater arresting the rollers of the wide Pacific on its eastern face, and enclosing between it and the mainland of Asia the land-locked Sea of Japan in the north and the Tung Hai, or Eastern Sea, that washes the coast of China in the south. This string of islands, all acknowledging the sway of the Mikado, number about 4,000, the five principal ranging in area from 13,500 (Formosa) to 87,500 square miles (Hondo); the rest forming an archipelago of islets ranging from a fraction of 1 square mile up to an area of 335 square miles (Sado Island). This long chain of picturesque fragmentary domains, all, with the exception of the northern Kuriles, richly clothed with sub-tropical vegetation set in the sapphire frame of a sun-illuminated sea, from which they rise steeply with no unlovely foreshore to detract from their beauty, form a fitting home for the unique people that dwell in them, and go far to explain the remarkable qualities that distinguish the Japanese race, who proudly call themselves the Anglo-Saxons of the East,—with the home of whom their own home exhibits a certain analogy of position, although the closeness of the analogy vanishes upon a near inspection of the two groups of islands which thus fall into comparison. The British Isles, separated only by a narrow strait, are far more closely connected with the continent of Europe than are the islands of Japan with the mainland of Asia. These, it is true, in the island of Tsushima approach the peninsula of Corea,—across the Broughton Strait at a distance little greater than that which separates Dover from Calais: 42 as against 22 miles. But the distance between the westernmost point of Old Japan (Nagasaki) and the nearest point of the true mainland (Shanghai) is 450 miles, over a wide stormy sea, almost

impassable by the ill-found coasting craft of old; and the actual distance across the Corea Strait from Nagasaki to Fusan, omitting the stepping-stone of Tsushima, is 150 miles. Hence, owing to its greater proximity, Chinese civilization filtered

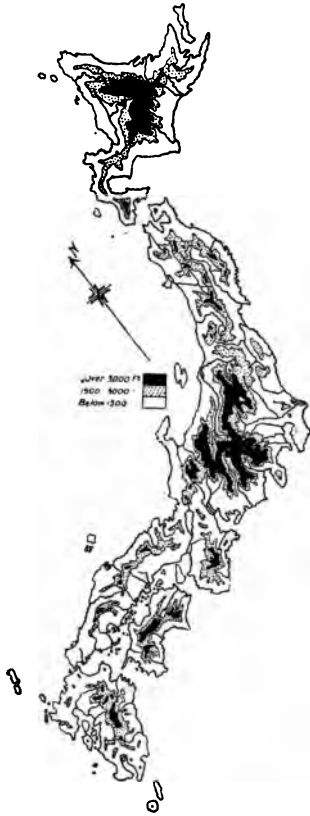


FIG. 34.—Japan. Orographical.

through to Japan across Corea— itself isolated by its position, and holding only a spasmodic intercourse with its powerful suzerain in the shape of an annual tribute-bearing embassy that made its slow way overland, through largely uninhabited territory, to the Chinese metropolis. While the British islands invited access from the Continent by their navigable rivers and fertile uplands, the islands of Japan rose steeply from the sea in forest-clad mountains, separated by a few narrow cultivable deltas formed at the mouths of unnavigable torrents which, though now controlled by lofty embankments, still at times break loose and devastate the surrounding plains. In their total area of 121,000 square miles, the British Isles come after Japan with 147,000 (excluding Formosa), but while the former are practically cultivated throughout, in Japan barely one-eighth of the area is cultivated. With the exception of the small river deltas, the whole country consists of mountains, amongst which tillage is confined to narrow valleys

and small hollows and to a few larger elevated valley basins where a rich soil, mainly of volcanic origin, has collected. Large areas of this hilly region, outside the volcanic peaks and the chains of hills belonging to the older schist mountains, are composed of undulating plateaux of clay and sand, the insoluble products

of the disintegration of a much weathered granite rock, frequently overlaid with diluvial gravel. These support light woods of pine and coarse innutritious grasses but little or no pasture land, the succulent herbage of Europe and of North China and Mongolia in the same latitude being entirely wanting. The 40,000,000 population of the fertile British islands is largely dependent upon imported food; the equally large population of Japan, up to the time of the opening of the country to foreign trade in 1854, were ever dependent on the crops they could themselves produce; hence an intensive cultivation of every available spot of arable land, chiefly with rice, the staple food of the people and most prolific of cereals, and of which the hot summer sun and abundant rainfall enabled, in the south, two crops to be produced in the year; hence also, the necessarily extraordinary thrift of the people, a generally insufficient diet, and probably their small stature. To-day, the population totals 50,000,000, but the establishment of manufactures and a foreign trade increasing by leaps and bounds, as in Britain, renders possible the import of unlimited food supplies from abroad, and so more wholesome conditions now rule. Of subsidiary products of the sub-tropical zone, Japan yields an endless list, while the wealth and variety of the Japanese flora is proverbial. From South Cape in Formosa to the northernmost of the Kuriles, off Cape Lopatka in Kamtschatka, the Japanese islands reach, in a direction south-west and north-east, through thirty-one degrees of latitude (21° to 51° N.), and from the Pescadores to the outermost Kurile, thirty-six degrees of longitude (119° to 136° E.); while the British Isles, from the Land's End to the Shetlands, cover eleven degrees of latitude only (50° to 61° N.), and, from Valentia to Yarmouth, twelve degrees of longitude ($10^{\circ} 50' W.$ to $1^{\circ} 50' E.$). The relative great compactness and homogeneity of the British domain is thus strikingly demonstrated. If we take York in latitude 54° as the centre of the British system and Yokohama in latitude 35° as the centre of the Japanese, we find an average difference of nearly twenty degrees of latitude in favour of the latter. But while the summers are hotter and moister, the winters are longer and colder than in the same latitude in Europe, and although Japan is free from the greater extremes

of the 'continental' climate of the mainland adjoining, yet it partakes largely of the character of the latter, and a peculiarly varied flora, as Professor Rein points out, is the result. Yokohama is in the same latitude as Malta, but the period of development for wheat is in Japan two months longer than in Malta, 'because there a pause of several months occurs, while in Malta even the coldest day of 10° C. is still warm enough to stimulate growth.' Sugar, which flourishes as far north as latitude 30° in China (Szechuan), can only be grown in the extreme south. On the other hand, the Japanese can now obtain an inexhaustible supply of this staple from their latest acquisition—Formosa, as they have done formerly from the Liuchius.

The Japanese islands make a long link in the chain of active and extinct volcanoes that surround the Pacific Ocean, and the land of which they are formed is mainly volcanic in character. Japan proper, or Old Japan as it is called by the Japanese, consists of the three main islands, Hondo¹ (mainland), Kiushiu (nine-lands), and Shikoku (four-lands), together with the adjoining islets; to these must be added the northern island of Yezo, now styled Hokkaido (northern sea route), the present home of the aboriginal Ainu, and only of recent date colonized by the Japanese proper. The islands next in importance are Sado, off the north coast, in the Sea of Japan, famous for its gold and silver mines, and Tsushima, the stepping-stone from Japan to Corea, noteworthy as the scene of a fruitless attempt at occupation by the Russians in 1861, an attempt frustrated by timely British intervention. Then we have the Goto (five islands), lying off Nagasaki on the west, and the large island of Amakusa to the south, famous for the sudden conversion of its inhabitants to Christianity by orders of the Daimio in 1577, and the revolution in the opposite direction in the next century, when, by orders of the Shogun Iemitsu, the whole of the Christian inhabitants, amounting to some tens of thousands, were ruthlessly exterminated. Farther to the south of Kiushiu, lying off the Kago-shima Gulf and separated from it by the Van Diemen Strait, 30 miles wide,

¹ The Japanese, in their passion for symmetry, have now renamed Hondo—Honshiu. We retain the, to our ears, more euphonious name, Hondo, throughout as being easier to distinguish from other names and easier to recollect. We have done the same with Yezo, renamed Hokkaido.

lie the two large islands of Tanega-shima and Yaku-shima—the former long, low, and highly cultivated; the latter, ‘a circular maze of lofty mountains, rising to a height of over 6,000 feet and covered with dense forest, wherein grow some of the fine cryptomerias of Japan.’ Murray’s *Handbook*, from which we take these details, tells us that Tanega-shima was the first Japanese dependency on which Mendez Pinto set foot. In 1543, this famous Portuguese adventurer found his way to the town of Ōita, in Northern Kiushiu, on the Inland Sea (now connected with Shimonoseki by rail), and there met with a friendly reception from the local Daimio. The great Jesuit missionary, St. Francis Xavier, also spent some time at Ōita, and Otomo, its lord, was the first Daimio to embrace Christianity. Still farther south, and in line with these, stretches the chain of the Liuchiu islands, the westernmost of the group lying within 50 miles of the Formosan coast. The total area of the group is only 171 square miles, with a population of 170,000. These islands, formerly independent, but paying nominal homage and tribute to both their powerful neighbours, China and Japan, were, in 1876, quietly mediatised by Japan, and their king carried off to Tokio. The islands now form the thirty-sixth ken or prefecture of the empire. The smaller islands to the north are volcanic and rise steeply out of the sea; the larger islands are of coral formation, the two chief being, Oshima (Big Island), with its port of Nase, and Okinawa (Great Liuchiu), with its port of Nafa; here ‘the constant outcrop of coral on the surface renders walking very arduous.’ The Liuchiuans subsist almost exclusively on sweet potatoes and on sago obtained from the pith of the *Cycas revoluta*, a small tree resembling the sago-palm, which grows in immense quantities.’ The Liuchiu race is one with that of Japan, though the spoken dialect is unintelligible to the Japanese. Still farther south and to the eastward, lie the Bonin, ‘No-man’ or uninhabited islands—in Japanese, Mu-nin-to—140 miles distant from the southernmost point of Kiushiu; these lie in the direction of the 142nd meridian, from north to south, and extend from latitude 26° 30’ to 27° 55’ north. These small islets were originally annexed by Captain Beechy, of H.M.S. *Blossom*, in 1827; but in 1861, when the Japanese asserted

their claim to the islands, the British Government waived their rights; in 1875 the population consisted of sixty men—Europeans and Kanaks—and two Japanese women. At the other end of the string, stretching northwards from the large island of Hokkaido to the peninsula of Kamschatka, are the Kuriles, the Chishima or Thousand Isles of the Japanese, eighteen uninhabitable islands, ceded by Russia to Japan in 1875 in compensation for Japan's abandonment of her claim to the rich island of Saghalien. The Kuriles derive their name from the Russian word 'kurit,' to smoke, in allusion to the numerous volcanoes which the islands contain. Originally valued by the Russians for the wealth of fur-bearing animals found among them, and which have now been hunted almost to extinction, their present value to the Japanese lies in the rich solfataras found in the southern island of Kunashiri. The island contains a volcanic peak 7,900 feet high; this and the adjoining large island of Iterup are thickly wooded with conifers, and the streams from August to December are alive with salmon; bears too are plentiful. Of the Kuriles generally the *China Sea Directory* states: 'The fog in which these islands are constantly enveloped, the violent current experienced in all the channels separating them, the steepness of their coasts, and the impossibility of anchoring, are such formidable obstacles that it tries to the utmost the patience and perseverance of the mariner to acquire much knowledge respecting them.' The Izu group or 'Seven Islands' are known to all visitors to Japan, as lying off the entrance to the gulf of Yokohama, and conspicuous by the active volcano in Vries island, the largest island of the group, which rises to a height of 2,500 feet; these lie at the head of a string of isolated volcanic peaks rising out of the Pacific along the 140th meridian down to and below the 30th parallel of latitude. Off the north shore of Hondo, in latitude 36°, lies one more group of islands, famous for their romantic scenery and historical associations—the archipelago of Oki-no-shima, or 'the islands in the offing.' They are about 40 miles distant from the port of Akasaki on the mainland, are mountainous and well wooded. The population of 30,000 depend mainly upon the collection and drying of cuttle-fish,

of which, besides timber and firewood, quantities are exported to the mainland, employing a large fleet of boats; their area is 130 square miles. Mr. Lacfadio Hearn, in his *Glimpses of Unfamiliar Japan*, writes most enthusiastically, both of the scenery and of the prosperity of the inhabitants. He says: 'I think the scenery of this archipelago much finer on the whole than that of the boasted inland sea. The glimpses between high islands, the openings of straits, the vistas of tender blue distance between rugged high cliffs, are wonderfully beautiful.'

The three large islands of Old Japan, which comprise together with Yezo, and excluding Formosa, ninety-five per cent. of the total area of the empire, are: Hondo, 87,485 square miles; Kiushiu, 16,840 square miles; and Shikoku, 7,031 square miles. Hondo, extending from the straits of Shimonoseki in the west, which separate it from the island of Kiushiu, to Tsugaru Strait in the north-west, by which it is separated from the island of Yezo, has a length of about 700 miles, and a greatest width, in about the meridian of Fuji-yama, of 180 miles; it contains within its area the two capitals, the old and the new—Kioto and Yedo; the latter made the capital by Ieyasu, the first Shogun of the Tokugawa dynasty, in 1603; the former, the ancient seat of the Mikado, once more restored to power by the revolution of 1868. The two capitals have now been renamed respectively: Saikio, the western capital, and Tokio, the eastern capital; this last being the present seat of government and residence of the Mikado. The 'mainland' of Hondo also contains the two chief Treaty Ports—Kobe, situated at the eastern extremity of the 'Inland Sea,' and Yokohama in the bay of Tokio, 18 miles south of the capital; a third open port, Niigata, is situated on the opposite or western coast, opposite the island of Sado, from which it is distant 32 miles. Owing to the bar, common to the mouths of Japanese rivers, steamers cannot enter the port, and have to anchor in the open roadstead; hence the trade by sea, never of any real importance, is confined to the summer months—May to October. The winter storms that set in with the north-eastern monsoon, blowing from the cold Siberian coast, rage with terrific violence; deep

snow falls, and traffic ceases. Mr. B. H. Chamberlain tells us that the site of the present town has become dry land only within historical times, and that 800 years ago its site was 8 or 10 miles out at sea: 'There exists confirmatory evidence that the whole of the rich alluvial plain here extending between the mountains and the sea—100 square miles or more—has become dry land within historical times, partly by the silting up of rivers, partly by upheaval of the land.' Such secular elevation of the land appears to be going on slowly but steadily on both coasts. Osaka, the Manchester of Japan, situated 20 miles east of Kobe and also containing a 'foreign' settlement and a total population now estimated at 1,000,000, is the chief manufacturing, and, with Kobe, the largest shipping centre of the empire. Osaka and Tokio are situated in the two largest of the few delta-plains that the almost exclusively mountainous surface of the Japanese islands have left room for: Osaka, in that of the Sumida-gawa, a small stream that has its source in the central mountains of Hondo; at the same time, the gradual elevation of the land has facilitated the reclamation of large areas of level land from the shallow waters of the estuary on which Tokio is situated.

Standing on the summit of the highest mountain in Japan—the famous volcanic cone of Fuji, which rises at first in a gentle slope from the gulf of Suruga, and, as the summit is approached, ends in the steep wall-like declivity so familiar in Japanese pictures—from a height of 12,395 feet, the tourist looks north over a sea of mountains, often described as the Japanese Alps¹. These wide mountain masses may be said to form the meridional backbone of the Hondo 'mainland,' separating it into two portions and forming a great natural rampart between the more anciently settled and highly developed south and east and the wilder, less productive, north and west. Fuji towers so high above its immediate surroundings, and its isolated peak provides such a magnificent bird's-eye view of Central Japan, that one hardly appreciates the fact that in the mountains to the north and west are at least a dozen peaks rising to a height

¹ August is said to be the only reliable month in which to ascend Fuji. We made the ascent on August 12, and enjoyed magnificent weather and a splendid view.

of over 10,000 feet. These peaks rise out of the two parallel ranges which run north and south 100 miles athwart the main island, and which enclose the provinces of Etchu and Hida, and partly Mino, on their western and eastern sides respectively, their granite cliffs falling steeply into the Japan Sea, while among them the peak of Haku-san, the White Mountain, forms, with its snow-filled ravines, a brilliant landmark to sailors in the stormy Sea of Japan. Professor Rein has named this range, which thus closes in the provinces of Etchu and Hida on the west, the 'Snow Range'; he tells us that it is mainly granite, but describes Haku-san as 'an imposing mountain-mass built upon Jurassic sandstones and trachytic conglomerates of magnificent hornblende andesite.' In a gorge at the foot of this mountain, he had the good fortune to discover the fossil remains of sixteen plants belonging to the middle oolitic system—the earliest prototypes of species still represented in the flora of Japan, being akin to the Jurassic formation of Eastern Siberia and the Amur country. In the adjoining province of Mino to the south, is found the felspar of a splendid pegmatite, the product of whose disintegration forms the basis of the ceramic industry for which Seto is famous—Seto-mono, or Seto ware, being synonymous with our word 'china,' used for porcelain generally in England. Farther to the east, and along the western edge of the fair vale of Kofu, runs the third meridional ridge which likewise contains several peaks of from 8,000 to 10,000 feet, composed mainly of rugged granite out of which rise volcanic summits, wild and difficult of access. This great mountain mass, second only in orographical importance to the Echu-hida (the westernmost of the three main ridges), rises between the valleys of the Fuji-gawa and the Tenryu-gawa; its best-known peaks being the Shirane-san (8,400 feet) and the Komaga-take (9,840 feet) of Koshu. Taken together, this group of lofty ranges which forms the distinguishing characteristic of Central Japan, provides the nexus from which the backbone of Northern Japan, running NNW. to the Tsugaru Strait, and that of Western Japan, running WSW. to the straits of Shimonoseki, set out. Here is the point in which the mass of the main island,—Hondo, the 'mainland,'—starting from the shore of the Krusenstern Strait, and spreading thence west to east, past Kioto and Lake Biwa, to what might be termed the axial

peak of Komaga-take, makes a great bend to the north; where the luxuriant semi-tropical vegetation of Western and Southern Japan is left behind, the palm and bamboo disappear, and a region of cold winters, with heavy snowfall such as is unknown in Western Japan, is encountered. The mountains in this northern projection run fairly north and south, so far as their course can be traced in the involved complex system of a volcano-studded country. As the land bends northwards from Tokio and we leave the wide Tokio plain (the Kwanto or land east of the Barrier) we reach the group of mountains of which Nikko, with its magnificent tombs of the Shoguns, enshrined in a forest of grand *Cryptomeria*, forms the centre, and of which the sacred Nantai-san (8,150 feet) is the principal peak. In these mountains is situated the famous copper mine of Ashio¹, said to be the most productive in the East; farther north, in latitude 37° 40', we find the active volcano of Bandai-san, situated nearly in the centre of the backbone, famous for its great outbreak in the year 1888, when four villages were completely and seven partially overwhelmed by the ashes ejected. Still farther north, 217 miles by rail from Tokio, stands, on the east coast, Sendai, the capital of the province of Rikusen—famed amongst the Japanese for its outlying group of 808 pine-covered islets, formed of volcanic tufa—the 'Matsu-shima.' Hence northwards the mountain chain extends unbroken a farther distance of 250 miles to the extreme northernmost point of Hondo, Cape Omasaki, throwing out spurs to the east which have formed a series of fine fiord-like harbours and bays on the Pacific side, while on the side of the Japan Sea the coast shows no indentations and is furnished with but a few indifferent harbours. The coast here, where the volcanoes have sent down lava to the sea, is steep-to and between the lava cliffs a flat shallow shore spreads out, composed of slaty shingle and bright red sand. Rein tells us that granite is the prevailing rock of this region and forms the foundation for thick strata of schist and sandstone: old schists rich in quartz overlay these, and

¹ 'The ore is found in a matrix of clay, calcite and quartz, and is almost entirely the pyrite of copper sulphide. . . . The lodes vary from 6 to 20 feet in width. The average yield is 19 per cent. of metal, the total annual product of finished metal being 6,000 tons.'—Murray's *Handbook*.

bear the ores of copper and magnetic pyrites. 'These schist ridges, rich in quartz, show, to a depth of 40 feet, considerable disintegration' which results in strewing the country with pebbles and quartz sand totally unfit for agriculture, and supporting chiefly a stunted growth of pines whose roots travel far seeking nourishment. The Pacific shore of Hondo, from Sendai northwards to the Tonami peninsula on the Tsugaru Strait, was the scene of a terrible calamity in 1806, when a so-called tidal wave, supposed to have been due to the eruption of a submarine volcano, swept away whole towns, drowning the surprised inhabitants.

Running through Western Hondo, from Lake Biwa to Shimonoseki, the backbone of the country, which stretches out from the central nexus, is better defined and so forms a distinct water-parting between the drainage to the south into the 'Inland Sea' and the drainage to the north into the Sea of Japan. Two trunk roads lead along either foot of this range (reminding us of a somewhat analogous condition in the choice of the two roads along the Tien-shan mountains in Chinese Turkestan), the Sanindo, the 'shade road' along the northern slope of this central ridge, and the Sanyodo, the 'sunny road' along its southern slope. Mountain spurs jut out from the main ridge on either side to the shores of the Inland and Japan Seas respectively, and their crests go to form the natural boundaries of the sixteen provinces into which this portion of the main island is divided. Here agriculture is confined to mountain basins of limited extent and to narrow valleys, and embraces barely five to six per cent. of the total area. The inadaptability of the land to cultivation is not due either to deficiencies in the climate or to the steepness of the ground, but to the dry and rocky soil of the rounded schist ridges. In the broader valley bottoms, especially on the Sanyodo, the alluvial soil is for the most part very fertile and a flourishing agriculture is carried on—notably in the province of Harima. Again, if we turn to Northern Japan, we find a central backbone, less well defined, also proceeding from the central nexus, running in a continuous chain through the eight provinces of this northern bend, from the Nikko mountains to the bay of Aomori on the Tsugaru Strait. Its spurs here again mark off the natural

divisions of the provinces, while the backbone forms the water-parting between the Pacific and the Japan Sea. Its summits are chiefly volcanic cones protruding from older mountains, and rise from 4,000 to over 6,000 feet, with passes between of 2,000 to 3,500 feet. More imposing volcanic peaks rise isolated on either side of the principal range, the chief being Ganju-san (6,800 feet) which 'with its regular logarithmic curves' forms a striking object to those travelling on the northern line of railway. The aspect of the mountain may be compared to that of the three joints of a telescope, its structure thus making visible the three successive cones of the volcano. The two peninsulas which form the northern extremity of Hondo likewise exhibit a series of volcanic peaks. Farther to the south, on the west coast, the fine snow-capped volcanic peak of Chokai-san rises from the border of the Japan Sea to a height of 7,200 feet, and rivals the cone of Fuji itself in symmetry and beauty. A rounded hill country covered with brushwood forms to the south, on the borders of Sendai, the transition from these schist mountains to the central chain, in which the saddle-shaped mountain, Komaga-take or 'pony-back,' forms the most conspicuous elevation.

Once more proceeding north and quitting the 'mainland'—Hondo, we cross the deep Tsugaru Strait, 20 miles wide, and land in the island of Yezo (the name by which it is best known and generally marked in 'foreign' maps). The area of Yezo is 30,000 square miles, about the same as that of Scotland, its mountain-system being a continuation of those of Saghalien and the Kuriles. 'That of Saghalien we can follow in its southern continuation along the whole north coast of Yezo. The second mountain-system continues the range of the Kuriles. . . . To these two mountain-systems Yezo owes its four corners, and to their crossing its most considerable elevations. The mass of the old chain running from north to south consists of granite and old schists; in the axis of the range running west of south, volcanic formations predominate with trachytic and basaltic rocks.' The central peak is Tokachi-dake, 8,100 feet high, from which the rivers of Yezo flow outwards in all directions to the sea. There are several remarkable volcanoes to the north of Hakodate; Rishiri, the

small island in La Perouse Strait, which separates Yezo from Saghalien, has also its volcanic summit, while in the Kurile islands beyond numerous volcanoes are found, some still active. Yezo is best known by its Treaty Port of Hakodate, situated on the Tsugaru Strait, and as the home of the existing remnant of the Ainu, the aboriginal race of Japan, who, to the number of 16,000, make a living in this bleak northern island (although it lies between the parallels of 42° and 45°) by hunting and fishing. Otherwise the island is of little interest; large sums have been spent by the Government Agricultural Department of late years in the hope of establishing profitable agriculture, and 'experts' from the United States were engaged for the purpose of training the people in American methods of farming, which, being totally unsuited to Japanese conditions, proved an utter failure and have now been abandoned. 'The chief resources of the island are the sea with its abundance of fish and algae, the collection of which has led to the addition to the aboriginal coast-population of numbers of Japanese immigrants, many of whom only come over from the "mainland" for the summer months and are employed by traders as day-labourers in fishing and in the collection and preparation of edible algae.' This edible seaweed is exported to China in large quantities, where, throughout the whole empire, no set meal is complete without its dish of seaweed. The artificially-raised cost of common salt in China is another cause of the large consumption of the salt weed. The Tsugaru Strait, though of such narrow width, forms a sharp dividing-line between Japan proper and this northern island. The difference in the fauna and flora point to the fact that Yezo has been separated from the main island through long geological ages. The flora of Japan proper is largely common to China, whence it has chiefly been derived, partly by natural methods of propagation and partly by the hand of man: the flora of Yezo on the other hand would seem to have been derived from Saghalien and the Amur region, but, as Rein points out, it is still very imperfectly known. The island is under snow and ice for five months of the year, and its colonization has only been actively taken in hand since the revolution of 1868; the Japanese population of Yezo is now estimated at 500,000. The

north and east coasts are inaccessible in winter owing to the ice—such is the effect of the cold Arctic current descending to the latitude of Nice and Rome.

Over against the south shore of Western Hondo, running parallel with it for a distance of 150 miles and separated from it by the bays and narrows of the Inland Sea, lies another of the three large islands which go to compose 'Old Japan.' This large island, called Shikoku, the 'Four Countries,' after the four provinces into which it is divided, possesses an area of 6,854 square miles. The greater part of the island is covered with mountain-ranges of from 3,000 to 4,000 feet in height with few salient peaks, the loftiest being Ishizuchi-yama, 6,480 feet. The island of Awaji, lying off its north-east corner, would join Shikoku to the mainland with its traversing mountain-ridge (1,500 feet) running SSW. and NNE. but for the intervening narrow straits of Naruto at one end and those of Akashi at the other. Professor Rein further points out that the parallel south-west and north-east schist-ridges that are prominent on the mainland, across the Kii Channel in the provinces of Kishu and Yamato, continue this line through the province of Shikoku, where, from the main range, branches run out north and south which in lithological character, as well as in elevation, essentially resemble the central chains. 'Thus, then, we observe in Shikoku a number of considerable mountain-ridges of substantially the same height—3,500 to 4000 feet, above which the highest summits hardly rise 300 to 600 feet. The plain of Taku-matsu is fringed towards the sea by several volcanic cones, quite distinct from the schist mountains in the interior: they include no important heights but are a very striking feature in the landscape.' Owing to the warm Kuro-siwo stream impinging directly upon its shores, Shikoku enjoys a very mild climate compared with that of the mainland opposite, and is the only region in Japan where two rice-crops each year are assured. 'In the higher regions the eye is delighted by a vigorous growth of deciduous trees, where horse-chestnuts and magnolias are variously intermingled with beeches, ash, oak, and alder trees. Laurel-leaved oaks, camellias, and other evergreen trees venture much higher than in Hondo; while still

lower, camphor trees and other cinnamon species, the wild star-anise, *Nandina* and many other plants which we only find in the main island in a state of cultivation, take part in the composition of the evergreen forests.' In the north-west corner of the island is situated the famous Besshi copper-mine, the second largest in the country, with an annual output of 4,000 tons. Shikoku is also noteworthy as the home of the Tosa clan, whose ability, courage, and democratic sentiments led to their taking a foremost part in the recent renovation of the country. Shikoku contains no open or Treaty Port within its area.

Adjoining Shikoku on the west, and separated from it by the Bungo Channel, is the large island of Kiushiu, the second in size of the three main islands of Old Japan; it lies to the south of the western end of Hondo, the narrow straits of Shimonoseki forming the dividing-line. Kiushiu has an area of 13,763 square miles, being about the same size as that other recent island addition to the empire—Formosa; and is best known as the site of the earliest port visited by European trading-ships—Nagasaki, with its old Dutch settlement of Decima. The island of Kiushiu consists throughout of confused ranges of mountains, cut up by arms of the sea into peninsulas and headlands, and, at first sight, showing no general direction. The island is studded throughout with volcanoes, some of which are still active, and is crossed by mountain-ranges of very old schist formation. A backbone, not continuous, runs north and south from Moji to Cape Satasaki and forms the water-parting of the chief rivers which flow east and west, into the Pacific and the Amakusa Sea respectively. The average height of these ranges is 3,000 feet, several peaks rising to 4,000 and 6,000 feet, the highest in the island being Sobo-san, 6,600 feet, situated near the city of Kumamoto on the Shimabara Gulf behind Nagasaki, and Kirishima-yama, 6,500 feet, not far north of the famous stronghold of the Satsuma clan—Kagoshima. It is not easy to distinguish presently active volcanoes from potentially active ones, and thus to say decisively which volcanoes should be classed as active and which not. Scarcely a decade passes that we do not hear of an unexpected outbreak in one part or other of the Japanese islands: the chief features of these

eruptions, now as apparently in ancient times, are less the amount of lava outflow than the masses of scoriae, pumice, and lava-bombs ejected—and which have been spread over large surfaces of the country—usually devastating the land, but in some parts disintegrating and yielding good, arable soil. In Kiushiu we find numberless small, rich valleys and well-cultivated terraced mountain-slopes, interspersed with 'Hara,' the characteristic barren moorland of the Japanese islands, overlying volcanic ashes; but as a whole the island of Kiushiu is extremely productive, the original rock, metamorphic schists and other, disintegrating rapidly under the alternations of rain, frost, and drought the year round, while in summer the heavy downpours coupled with a high temperature stimulate vegetation, whereby humus is quickly formed and tillage rendered possible. As to scenery, its wonderful beauty, its endless variety and the rapid changes in the picture, so encouraging to the pedestrian, can hardly be described. Murray compares the coast beyond Oita in North-east Kiushiu to the Riviera, only far greener, and other parts as not surpassed by anything in Switzerland. Of the great volcano of Kiushiu, Aso-san, 5,630 feet, we abbreviate the description given in the *Hand-book*. 'Aso-san is nothing extraordinary in height; it is not even the highest mountain in Kiushiu, nor is the fact of its being an ever-active volcano any great singularity in this volcano-studded land. Its title to celebrity rests on the exceptional size of its outer crater, which is the largest in the world and rises almost symmetrically to a height of 2,000 feet. The only actual break is on the western or Kumamoto side, through which the river Shira-gawa runs out. According to popular tradition, the whole plain enclosed by this wall was originally a lake, till one day the god of the mountain opened this breach to let the waters out and leave the land fit for cultivation. The crater measures 10 to 14 miles in diameter and is popularly said to contain 100 villages. Eruptions of Aso-san have been chronicled from the beginning of Japanese history. In February, 1884, immense quantities of black ash and dust were ejected and carried by the wind as far as Kumamoto, where for three days it was so dark that artificial light had to be used. The crops in many of the fields in the

intervening valleys were destroyed by the ashes. Great activity also marked the volcano and the geyser in 1889. The latest eruption took place in 1894, altering the floor of the modern inner crater which has now two vents besides numerous rifts in the inner wall, whence smoke issues. In 1897, the fall of ash resulting from this outbreak was still continuing: it resembled a blight filling the greater part of the sky. At times it is quite impalpable, at others it may be easily collected in pailfuls. The country people state that there are two kinds of ash, one harmless, the other sulphureous, which spoils all garments left out in it and withers the crops.'

The island, washed on two sides by the Kuro-siwo, enjoys a very mild climate, and produces in abundance every kind of sub-tropical crops, fruits, and evergreen trees and shrubs. Its most valuable minerals are coal and kaolin; the latter is the source of the great ceramic industry for which Kiushiu is famous, its inhabitants having been taught the art by Corean workmen imported in the fifteenth and sixteenth centuries. Arita- and Satsuma-ware is exported in large quantities, though nowadays, unfortunately, quality is sacrificed to quantity. Kiushiu derives its name from the 'nine provinces' into which the island is divided. It is to-day the chief seat of the coal-mining industry in Japan, and the centre from which large exports of the mineral find their way to Shanghai and ports to the north, and from which the fleets of mail steamers that now make Nagasaki a port of call derive their supplies; the coal trade thus now forms the chief interest for 'foreigners' in Kiushiu. Outside of the coal district in Northern Kiushiu, little coal is found in the Japanese islands (apart from Formosa); the only other mine of any importance in the country being at Mito, on the east coast of Northern Japan, one of the few spots in Japan where true carboniferous limestone has been observed; and in Yezo, where latterly both anthracite and peat-coal are said to have been discovered in paying quantities. Rein points out that most of the coal measures in Kiushiu belong to younger groups of tertiary formation, in which limestone gives way to sandstone and schistose marl, and are therefore properly

peat-coal. 'At Mike in Chicugo an earthy peat-coal is found below red argillaceous sand, and below that 20 feet of friable clay-schist; here leaf impressions show the brownish-black coal to be tertiary.' Owing to the scarcity in China of good coal near accessible waterways, the Japanese coal found close to the seaports in Northern Kiushiu is in great request, as it makes fair steaming coal though it burns away rapidly and leaves a heavy percentage of ash. The Japanese are steadily prospecting and opening up fresh seams in this region; the coal here does not crop out on the surface, as is commonly the case in the vertically-tilted seams that provide an inferior coal in the Lower Yangtse valley, and so has to be sought at greater depths. The development of the true carboniferous series, characteristic of wide regions in northern and western China, is entirely wanting in the Japanese islands. In the thirteenth century Kiushiu was the scene of Kublai Khan's attempted conquest of Japan. Hakata, on the north-west coast, was the scene of the defeat of the Mongol fleet by the then Regent, Hojo Tokimune. Kublai Khan's soldiers had seized the half-way islands of Tsushima and Ike, but gave them up after their defeat off Hakata, when the remnant of the invading fleet of 500 vessels sailed for China, and was almost entirely destroyed by an opportune typhoon. This event occurred in 1281, and was the precursor, by three centuries, of a like destruction of an invading fleet—that of the Spanish Armada in British waters, in 1588.

The main island, Hondo, embraces in its mountains numerous lakes and tarns, of which four of the best-known deserve special mention; these are: Lake Biwa, to the east of Kioto, drained by the Yodo-gawa, which flows west, past Kioto, and enters the sea at Osaka. This lake of Omi has about the same area as the lake of Geneva, being 36 miles long by 12 miles in breadth; its level is 330 feet above the sea, and its greatest depth 300 feet. Lake Chusenji, to the west of Nikko, 7 miles by 2 miles, 4,300 feet above the sea, and 240 feet deep. Lake Hakone, to the south-west of Fuji, with an area of only 10 square miles, and lying 2,430 feet above sea-level, is famous as a health-resort and for its view of the great mountain, and also for the great barrier built beside it, which

in old days shut off Western Japan from the east; this was built across the highway of the Tokaido, at that time the only practical thoroughfare across the sea of mountains filling Central Japan, and which formed an effectual rampart to incursions from the west. Lastly, Inawashiro, to the south and at the foot of the active volcano Bandai-san, a large circular basin, 10 miles in diameter; 'this is not a true crater-lake but probably a depression formed by evisceration of the ground, resulting from the copious outpourings of volcanic matter in its vicinity.'

Glaciers, such as we find in a lower latitude, but on higher mountains, in Western China, are not found in any part of Japan; nor do we find here, any more than there, traces of an ancient ice age. The chief features of Japan, i. e. of the main islands—which, as Rein points out, lie between the parallels of the Nile delta and the Bosphorus—are, its volcanic formation, and its position in the heart of the warm gulf stream. Solfataras and hot sulphur baths are scattered throughout the land, and baths at a temperature of 110° to 120° F. are in daily use by large numbers of the people. Nothing more surprises and delights a Chinaman visiting Japan—to whom cold water is anathema, shocked as he is by the, to him, gross immodesty of the free intercourse of the sexes—than the providential provision of natural hot water in almost every village. Nearly all the peaks one meets with in Japan are volcanic, either of ancient or—geologically speaking—of modern formation, and are not the products of denudation, as is the case commonly on the mainland of China opposite. The smiling hilltops that encircle the lovely harbour of Nagasaki, and which rise to a height of 800 to 1,300 feet, are volcanic; 'and the highest mountain in the neighbourhood, Yagami-take, which rises a few miles eastward of the town, to a height of 2,000 feet, and provides it with excellent building-stone, is a trachytic cone. Rock-salt is not found in Japan; and valuable minerals in paying quantities, excepting copper, antimony, and, in some places, magnetic iron ore, are generally conspicuous by their absence. The temperate climate, fine scenery, and cleanly habits of the people, as compared with the omnipresent filth of China, make of Japan a favourite health-resort for foreign residents in China,

as well as the goal of round-the-world travellers from Europe and America. To the resident in the interior of China, with its dirt and mediaeval stagnation, a change to lively, progressive Japan is one from darkness to light. The Japanese may well be proud of their unique country and call it 'Kaminokuni'—Country of the Gods,—with more justification than exists for a favourite term with many Americans—'God's own country,' for the United States of North America.

Another interesting natural feature, forming one of the chief



FIG. 35.—Part of the 'Inland Sea' of Japan.

attractions to foreign travellers, is the well-known picturesque Inland Sea, which is embraced between the three main islands of the archipelago. From the straits of Shimonoseki, by which it is entered from the west, to Osaka, situated on the Izumi-nada—Sea-reach of Izumi—in the east, it extends for a distance of 270 miles, across six Nada (seas), separated from each other by narrow, often winding, straits—not rivers, such as separate, or rather unite with each other, the five great inland 'seas' of North America, but narrow, tidal, salt-water passages, where, as between the Harima-nada and the Bingu-

nada, there is barely room for two steamers to pass. The Inland Sea is now the common route for steamers bound from Shanghai and Nagasaki to Kobe, and thence on to Yokohama, affording a fine, smooth-water passage in lieu of the shorter distance through Van Diemen Straits to the rough seas of the open Pacific. This inland channel, spreading out in the Suwonada to a width of 40 miles, is studded with a countless archipelago of steep islands and volcanic islets of all shapes and sizes, rendering the scenery as picturesque as the navigation is intricate. The deep waters of the Pacific shoal rapidly from 60 to 20 fathoms as they approach the two main communicating channels—the Bungo at the western end of Shikoku, and the Kii at its eastern end, the latter leading through the famous Naruto whirlpool; thus it is not impossible that the elevation of the coast, of which many evidences are recorded¹, may some day convert portions of the bottom into dry land. Although numerous rivers intersect the country in all directions, these would, in Western lands, be regarded as hopelessly unnavigable; yet, as with similar rapid rivers in

¹ Rein states: 'Trustworthy evidences of a gradual so-called secular elevation of the east coast of Hondo were adduced by me for the coast of Nambu, and recently by Naumann for the plain of Kwantō. . . . The harbour of Kamaishi (lat. 38° 50') has lost its former active shipping trade during the last thirty years, owing to the shallowing of the entrances on each side of Oshima. . . . A newly-constructed road leads from Kisenuma along the margin of the bay and lies about half a metre above high-water mark. Soon after leaving Kisenuma it bends round a steeply falling limestone wall, which is traversed by narrow veins of calcareous spar, and, like the schist formation around, is undoubtedly of palaeozoic origin. Now, on this wall directly over the road, we observe a horizontal band about eighty centimetres broad, in which the limestone is coarsely perforated like a sponge. Lithophaga, the widely spread *Saxicava rugosa*, and in particular the *Petrolica japonica*, Dunker, whose well-preserved shells may still be observed in many of the holes, present as clear a testimony to the most recent history of this coast as the *Modiola lithophaga* in the columns of the temple of Serapis at Pozzuoli. The elevation which the coast of Kamaye-Ura (bay) has undergone in very recent times must be estimated as at least 1.5 metres. . . . In his study of the plain of Tokio, Naumann (Petermann's *Mittheilungen*, 1879, p. 121) has adduced certain proofs of its recent elevation, and indeed of the whole plain of Kwantō. He has drawn attention to the fact that maps from the first half of the eleventh century make Yedo Bay run much farther to the north; the mouth of the Sumida lay farther back, and the soil of the whole town of the present Tokio was under water. . . . Formerly, Yedo Bay stretched further over the whole level country of Shimosa and Hitachi, and northwards as far as the plain of Kwantō extends. Moreover, in Shikoku and other parts of Japan, there is more that points to the secular elevation of the coasts. . . .'

China, they have been utilized with wonderful perseverance, and, although now largely superseded by railways, small flat-bottomed boats still convey large numbers of passengers as well as loads of merchandise on their troubled surface; yet the true royal road of communication along the Japanese coasts is the sea. A glance at a map on a fairly large scale shows how wonderfully the islands—notably Kiushiu—are indented by far-reaching firths and bays, affording every facility for sheltered water-carriage between the different parts, while the Inland Sea itself may be said to take the place of a wide central river. This condition applies mainly to the Pacific side, and the islands bordering the China Sea. The north-west coast affords to shipping little more than open roadsteads, practically available only during the summer months. With the setting in of the north-east monsoon in October, a wild sea breaks on the rocky coast, snow-storms prevail, and an icy wind blows straight from Siberia and Kamschatka. Farther north, on the coast of Yezo, although the cold even there is far less severe than at Vladivostock on the Asiatic mainland opposite, the ice on the north and east coasts extends often 5 or 6 miles out to sea.

The Japanese islands are the easternmost region to come under the sway of the monsoon winds that, drawn to and from the deserts and highlands of Central Asia, rule from the Indian Ocean to the China Sea, and which form so predominant a feature in the climates of India and China. But in Japan their action is modified by the course of the great Pacific gulf stream (the Kuro-siwo) which, with its western branch, the Tsushima current, effectively reduces the continental extremes of climate prevailing on the mainland opposite, rendering the summers cooler and the winters milder, yielding, as it does, a large amount of moisture to the surrounding air: its temperature ranges from eight to ten degrees above that of the neighbouring sea, although generally two or three degrees lower than is that of the analogous current in the Atlantic. The Kuro-siwo meets no icebergs in its course across the North Pacific, the narrow, shallow Behring Strait and the long chain of the Aleutians not admitting egress to the Arctic ice as do the Davis Straits and the open Greenland Sea in the Atlantic.

The Kuro-siwo appears to take its rise in the vicinage of the Banshee islands, lying between Formosa and the Philippines in latitude 20° S., the northern equatorial current of the Pacific meeting the land of Asia being hereabouts deflected north and east, as is the Atlantic current by the land of Central America. The stream then flows outside Formosa along its eastern coast, in a current averaging 40 knots a day, as an ocean river 40 miles wide and 100 fathoms deep; it then washes the Liuchiu archipelago, which stands almost in mid-current, until it impinges on the island of Kiushiu. Here the current divides, the bulk of the water flowing on past the shores of Shikoku and Eastern Japan, whence it ultimately spreads out until, with diminished force it washes and warms the coasts of North America and Alaska. The western branch of the current, of comparatively small volume, washes the west coast of Kiushiu and flows on past the Goto islands and through the Krusenstern Strait between Tsushima and Kiushiu, on into the Japan Sea, whence a portion passes out again through the La Perouse and the Tsugaru straits, to the north and south of Yezo respectively, and so rejoins the main branch: this is known as the Tsushima current. The Arctic current from the Okhotsk Sea washes the east coast of Yezo and of Hondo down to about latitude 39° ; hence, in travelling by coasting steamer from Hakodate to Yokohama in summer, the cold current is left off the coast of Rikusen and the Kuro-siwo entered—a rise of ten degrees in the temperature of the water marking the change. Another cold current makes its way from the Okhotsk Sea through the gulf of Tartary and washes the coast of Manchuria, Vladivostock and Corea, and with the cold water discharged from the Amur, fills the western basin of the Japan Sea passing west of Tsushima and so on to the coast of China. Thus, while to the west of the Liuchiu islands on December 16 the temperature of the sea has been noted as high as 73° , on the opposite coast of China at the same time the temperature was down to 50° , for the cold north-east monsoon produces little effect on the temperature or direction of the powerful Kuro-siwo current. The rise and fall of the tide on the coast of Japan varies from 3 to 7 feet and is felt equally in the Inland Sea, where, however, its time and extent are considerably modified

by the straits and channels by which it is connected with the outside ocean. The typhoons of the China Sea, two or more of which are bred each summer in the neighbourhood of the Philippines, usually follow the course of the Kuro-siwo and pass to the eastward of Formosa, and thus avoid the coast of China; occasionally, however, the typhoon turns inwards and strikes the coast of China, usually between Canton and Amoy,

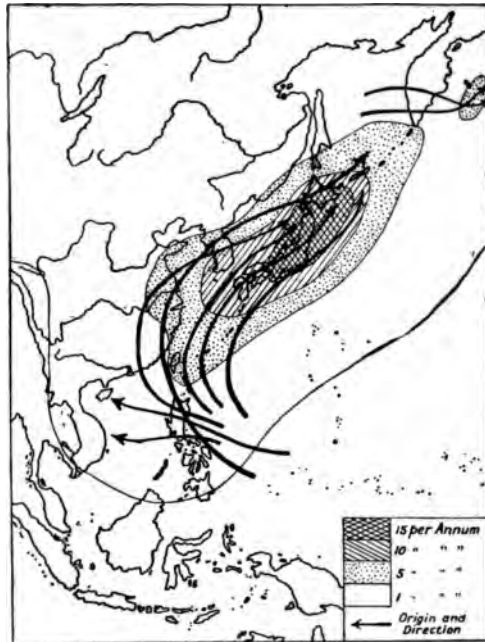


FIG. 36.—Storm Tracks in the China Seas.

as was the case with the great typhoons of 1874, which devastated both Hongkong and Nagasaki. The true centre of a typhoon never strikes the coast north of the Liuchius; one often reads of Shanghai and other places experiencing one of these visitations, but in such cases it is the outside edge of the gale, many miles from the true centre, which is felt. Japan, however, has her full share of these visitations, besides the ever-recurring calamities of flood and earthquake, all of which

may go to account for the happy-go-lucky mercurial temperament of her extraordinary people.

The southernmost and latest addition to the string of innumerable islands, large and small, which go to make up the empire of the Mikado, and which extend south-west and north-east a distance of 2,000 miles along the coasts of China and Siberia—from the tropic of Cancer to latitude 50° north—is the island of Formosa. Acquired from China as the result of the war of 1895, misgoverned and little valued by the Peking authorities after 200 years of partial occupation, it now forms the brightest jewel in the chain of the Japanese group, so happily interposed as a protective barrier between the thus land-locked seas of China and Japan and the broad expanse of the rolling Pacific beyond; in relation to its area, Formosa is undoubtedly the richest of the Japanese islands, although its possibilities are not yet half proved by actual development. In area, Formosa slightly exceeds the second of the three islands that compose 'Japan proper'—Kiushiu—while its population is barely one-third of the latter, the respective figures being:—Kiushiu, 13,763 square miles, with a population of 6,000,000; Formosa, 14,978 square miles, with a population of 2,000,000. Formosa is thus just half the size of Scotland with one-third of its population. The island is 255 miles long, and its greatest width is 80 miles; it consists of a backbone of mountains, steep to the Pacific, but falling more gradually to the west and giving room to an extensive plain on the side of the China Sea. This central backbone culminates in the lofty peak of Mount Morrison, which rises near the centre of the island to a height of 14,500 feet and is now renamed Nii-taka-yama by the Japanese, i. e. the 'new high mountain,' in allusion to the fact of this, the last to be added to their empire, being also the highest—higher even than Fuji itself. This grand mountain slopes steeply seawards on the Pacific side, where it ends in the highest sea-cliffs in the world; and in more gradual undulations on the side of China. 'It is not volcanic, though very hot springs are met with; it consists of argillaceous schists and quartzite.' The 'Formosa Channel' separates the island from the mainland of China, from which it lies distant 90 miles; Amoy, in the province of Fukien,

being the nearest town on the mainland. This town and Treaty Port, situated immediately opposite Taiwan-fu, the administrative capital under Chinese rule, was formerly the seat of a large trade with America in Formosa teas, which were brought across in the raw leaf and prepared and packed for shipment by the foreign merchants in Amoy; now, under Japanese administration, this business is being diverted to the island itself. On the east coast, the land falls away so steeply from the mountain backbone of the island that the rivers there are nothing but mountain torrents, which fall into the sea in magnificent cascades, but provide no harbours in the iron-bound coast. Dr. Guillemard, in the *Cruise of the Marchesa*, says:—‘Upon rounding the north-east promontory of the island, after leaving Kelung, the magnificent line of precipitous mountains which, with few interruptions, characterize the east coast of Formosa down to latitude 23°, begins. The lower third of these mountains (5,000 to 7,000 feet) falls to the sea in vertical cliffs. All the rest, except on the sea face, is clothed from base to summit with the densest vegetation; and the gigantic wall of rock is riven every few miles by huge gorges of unparalleled grandeur. . . . The cliffs of the Yosemite fall into insignificance by comparison.’

To the west, on the other hand, the land slopes more gradually, giving rise to fertile, undulating country, and rich, alluvial plains, teeming with every description of tropical and sub-tropical produce fitting to a latitude of 20° 54′ (South Cape) to 25° 19′ (Syauki Point) with an annual rainfall of 120 inches. These western slopes give rise to several fair-sized rivers, all however so choked with sand that only one, and that in the extreme north of the island, is navigable for a few miles and provides an anchorage for moderate-sized coasting-steamers—the well-known harbour of Tamsui. The only really good harbour is situated, not in Formosa itself, but in the adjacent Pescadores or Fisherman islands; these lie in the Formosa Channel, somewhat to the south of the centre of the island and about 40 miles distant from it—their distance from the mainland averaging 80 miles. This excellent harbour is formed by the two islands, Panghu and Fisher—the former the largest of the group and having a circumference of 84

miles. 'Their formation is chiefly basaltic, the inland is flat and the soil poor, and the prevalence of violent north-east (monsoon) winds for half the year prevents the growth of trees. Typhoons also exert their full fury in the Pescadores Channel, which is consequently littered with wreck.' The P. & O. steamer *Bokhara* was wrecked here in 1892, with



FIG. 37.—Formosa.

a loss of 125 lives, including the Hongkong cricket team. It was from Chinese fishermen settled in these islands that the Chinese, in the thirteenth century, first learnt of the existence of Formosa.

The lofty mountain-range which forms the conspicuous feature of the island has been described as volcanic, but the

thick jungle with which it is covered and the savage nature of its still untamed inhabitants have stood in the way of any thorough examination of the range: escaping, inflammable gas seen flaming in the high jungle simulates volcanic outbursts, but no actual volcanoes have been found; solfataras exist in the northern end of the island, and under Japanese auspices may in time come to rival those of Japan itself. Rock-oil abounds, and its value has long been familiar to the natives, by whom it is employed both as fuel and medicine; coal, of a highly bituminous nature, has long been mined successfully at Kelung in the north and supplies the coasters abundantly with fuel. The vegetation is characterized by tropical luxuriance; the mountains are densely clad with forest palms, the cassia, aloe, pineapple, and camphor trees; these last are a speciality of the island and in their abundance a main source of its wealth—formerly to the Chinese settlers, now to the Japanese Government, who have taken over the monopoly of the distillation of the oil and are attending to the preservation of the camphor-forests, which the Chinese regarded as inexhaustible and were rapidly destroying. In the plains along the west coast and on the lower western slopes of the mountains, the soil is sand and alluvial clay covered with rich vegetable mould, producing heavy crops of rice, besides a large yield of taro, sweet potato, wheat, barley, millet, and maize. Sugar, tea, indigo, ground-nuts, jute, hemp, oil-seeds, and rattans—the tea of better quality than that of the neighbouring mainland—all provide ample material for a valuable export trade. Situated full in the path of the two monsoons and being so largely mountainous, the island enjoys a healthy and agreeable climate, though malaria is deadly, as throughout the tropics where new soil is disturbed. The scenery is everywhere beautiful, in the mountains imposingly grand, and well justifies the name of Formosa bestowed upon it by the Portuguese, the first Europeans to visit the island, in 1590. Formosa while still Chinese had four open ports, negotiated for under British treaties with China, and which continue such under Japanese rule. These are: Kelung, with its coal-mines and camphor; Tamsui, the best available of the 'bar' harbours, with a depth of $3\frac{1}{2}$ fathoms—these two lying close

together on the north coast; Takao, the sugar port in the extreme south; and Taiwan, the late capital, in the centre, situated 2 miles inland from the open roadstead of Anping; this city is credited with 100,000 Chinese inhabitants, and is famous as containing the remains of the old Dutch fort, Zealandia. The Japanese conquest of the island has resulted in the removal of the capital to the ancient Chinese walled city of Taipeh, now renamed Taihoku and outside of which stands the 'foreign' settlement of Twatutia. Taihoku is situated 13 miles from the mouth of the Tamsui river, and has been made the capital owing to the fact that this river, together with the imperfectly protected anchorage off Kelung, with which Taihoku is now connected by a short railway, makes of Taihoku the site most accessible by sea of any in this generally harbourless island. The combined population of the three places is about 120,000 Chinese and 50 Europeans, besides a garrison of 6,000 Japanese.

The varied and prolific yield of the rich soil of Formosa, depicted above, is due to the energy of the Chinese immigrants and settlers in the last century; these have gradually driven back the aboriginal inhabitants to their fastnesses in the high mountains, whence the latter take their revenge by sallying forth and collecting heads from the Chinese tillers of the soil; without the possession of at least one, either Chinese or of a neighbouring tribe, no young 'Che-huan' dares call himself a man. These aborigines appear to be of Malay stock, and, like the Liuchiu islanders, are believed to be one with the Tagalas of the Philippines. But while the Liuchiuans, having for generations past opened their arms to the civilizing influences of China, are an absolutely peaceful race, the Formosans, though living in a land easily sufficing for all their material wants—being split up by internecine feuds into unnumbered tribes, ignorant of each other's language, with no written signs or means of computing time—remain hunters and warriors, and despise the quiet life of the agriculturist. Yet there would seem to be the making in them of a fine race; the few Englishmen who have visited their country describe the Che-huan as a noble savage, hospitable, and true to his blood bond, but an irreconcilable enemy to the Chinese. It will be

interesting to see how far the Japanese will succeed in gaining their confidence and so civilizing them in the end. The cause of their aloofness is well explained in the physical isolation of the precipitous walled-in valleys they inhabit and the pathless jungle whereby they are split up into isolated groups. Their racial characteristics are attractive, for they are described as 'well-built, handsome, strong, large of eye, bold, and honest,' and they are, in their Malay mixture, akin to the Japanese. In the neutral zone between the mountains and the alluvial plains, mixed marriages with the Hakkas (Chinese from Swatow) have developed a race of half-castes, known as Pe-pa-huan, who shave the head, wear the Chinese garb, and are to all intents Chinese. The inhabitants of Botel-Tobago (rechristened by the Japanese Kotosho)—the lofty island lying off the south cape of Formosa, from which it is distant 50 miles to the east—belong likewise to the Malay family. These, though barely more civilized in other respects, are a gentle, kindly race, very different from their kin on the main island.

The history of Formosa is a chequered one. Before the island came under Chinese sway, towards the end of the sixteenth century, the Portuguese established themselves at Kelung, to which they gave the name of Formosa—afterwards extended to the whole island. After these, in 1624, came the Dutch, who established themselves at Taiwan-fu and fortified themselves in the fortress which they named Zealandia, so solidly built that its walls remain to this day. At the same period the Manchus were occupied in conquering South China, the province of Fukien being the last to hold out and offering the most determined opposition to the new foreign rule; it was thence that the beaten adherents of the Ming took refuge in the then almost unknown island opposite—Chinese from Amoy, and Hakkas ('Guests,' i. e. immigrants, originally from the Yangtse valley) from Swatow—and found a refuge among the Tung-fan, or eastern barbarians, of Formosa. Their leader, Coxinga (Dutch simplification of the three syllables composing the Chinese name), determined to drive out the Dutch, and fought them with varying success according to the strength of the successive reinforcements which the Dutch, during the long

period of the struggle, received from Batavia. Notwithstanding diversions on the mainland by the Dutch fleet—the attack on the Min and the capture of Amoy—the Chinese, after thirty-seven years' almost continuous fighting, succeeded in blockading the Dutch in their fort, in which, after a nine months' siege, the remnant of the garrison were compelled to surrender. Fort Zealandia was finally captured in 1662, when the garrison of 500 men, besides the women and children, were all put to the sword, 1,600 men having previously fallen in the siege. The home authorities in Batavia now seem to have given up Formosa as a bad job, and the island thus came under the sole rule of Coxinga. The Dutch meanwhile had sent an embassy to Peking renouncing their claim to the island, and the Manchus having now completed their conquest of China proper, Formosa submitted likewise, and was formally incorporated in the Chinese Empire for the first time in 1682, Coxinga being ennobled by the emperor Kanghi as Hai-ching-kung or Sea-quelling Duke. In 1714 the Jesuit mathematicians, who were employed to make a survey of the empire, visited Formosa in the course of their work. Later in the century rebellions, due to the exactions of the officials sent from Fukien to govern the island, were frequent and severe. The savagery, even of the Chinese inhabitants, was shown as lately as 1842, when forty-three men, the crew of the British brig *Ann*, were executed at Taiwan; this place was at length opened as a Treaty Port in 1860. Fort Zealandia was once more occupied in 1868 by British bluejackets and by request of the Acting British Consul, consequent upon unprovoked attacks by the Chinese upon British and French missionaries; this action was disavowed by the Home Government, and the indemnity that had been meanwhile collected from the Chinese was restored to them. In 1872 the crew of a shipwrecked Japanese vessel were murdered by the savages, whereupon Japan landed a military expedition in the island and would probably at that time have held possession of it but for the intervention of the British Minister at the Court of Peking, Mr. Wade. A treaty of peace was at length, in 1876, signed between China and Japan, by which the Chinese paid an indemnity of \$750,000. This event seems to have woken up the imperial councillors in Peking to

the fact of the existence of Formosa, other than as an outlying district of the province of Fukien—to its value and, for the first time, to its true position on the map; for, from this date on, a better class of governor was appointed, peace and order prevailed, and the foreign trade and steam communication with Hongkong and the Chinese mainland exhibited a most satisfactory development. In 1884 the Treaty Port of Kelung suffered a bombardment at the hands of the French fleet, by way of reprisal for the alleged support given by the Chinese authorities in Kwangsi to the 'Black Flags' in Tongking. The turn of Tamsui came next, and in the resistance 500 Chinese were killed; the whole island was now blockaded by the French, and Makung, a fort in the Pescadores, bombarded and occupied. From the time of the attack on Kelung until its evacuation in June, 1885, ten months had elapsed. Nine years later occurred the ill-omened war between China and Japan, resulting in the substitution of Japanese for Chinese rule—a change which has not so far proved beneficial to the 'foreign' trade with the island. It is noteworthy in this regard that, upon the outbreak of the war, when the Chinese commenced withdrawing their troops, a deputation of resident merchants and officials made an offer of the island to the then British Consul in Taiwan, Mr. (now Sir Pelham) Warren, but the Home Government, unwilling to take the lead in the 'break-up of China,' declined the tempting offer. Under Japanese rule order will no doubt be gradually established, and it will then be possible to traverse the aborigines' country in safety and so to learn more of the physical character of the land than has been practicable under hitherto prevailing conditions.

When we come to the question of ethnography in relation to the inhabitants of the Japanese islands, we find it impossible to speak authoritatively on the subject. As the earliest historical work of the Japanese dates from only the eighth century A. D., it is useless to seek in Japanese literature for any solution of ethnographical problems. That the Japanese are a branch of the great Mongol family, originating in Eastern Asia, is shown in an only cursory observation of the prevailing type of feature and habit among them. The prominent facial

development which is so marked in the Caucasian race, so called—the high-bridged nose and projecting forehead—is mostly absent in the Japanese type; here we find the small eye-sockets and drooping eyelids, the long, stiff, copious, straight, black hair, with elliptical section, associated with a generally hairless body and beardless chin, all proclaiming the Tartar descent. Hence there is little reason to doubt that the origin of the Japanese, like that of the Chinese, must be traced back to the *officina gentium*, supposed to have existed somewhere to the south of Lake Baikal and in the vicinity of the Altai mountains; whence, in prehistoric times, the forefathers of the Japanese migrated by way of Manchuria and Corea to the western islands of the Japanese archipelago. Kiushiu to-day exhibits the strongest trace of Chinese stock in its inhabitants, and appears to have been the part of Old Japan earliest settled from the mainland of Asia. Many of the customs of the Japanese, their domestic arrangements, the style of their dwellings, even their national dances, as well as the freedom of intercourse between the sexes, have led ethnographers to infer the presence of a decided strain of Polynesian stock; and there would seem little doubt that this is the case, otherwise it is difficult to account for the wide divergence in character from the parent Mongol stock. The lively, friendly temperament, the receptivity of new ideas, the quick active brain, and the cleanliness and neatness of the people which so forcibly strike the foreign visitor to Japan, especially when approaching the country from the mainland of China or Corea, cannot be attributed to climatic influences alone, but presuppose an infusion of outside, probably Kanak blood. A farther mingling of Malay stock may be inferred, not only from the propinquity of the Malay islands and the favouring gulf stream, but from many racial characteristics common to the two peoples to-day. The Japanese people, as one travels throughout the islands, exhibit a far greater variety of feature than do their unnumbered cousins, the Chinese, who are a far more homogeneous race. Various types are met with, as in the composite race inhabiting our own islands, and, as the Teuton forms the groundwork of the Anglo-Saxon, so the Mongol forms the groundwork of the Japanese race. In both instances the composite race has (at least we think it in our

own case) improved upon the individual elements from which it has been drawn, although the characteristics of the great parent stock prevail throughout—in the Anglo-Saxon, in the strong family ties, the high position given to woman, the love of truth, justice, order, and liberty, and the plodding perseverance of the Teuton; in the Japanese, in the endurance, the capacity for toil, the aestheticism, the indifference to suffering, and even the cruelty of the Mongol—qualities which are generally wanting in races of pure Polynesian and Malay stock, as we find them to-day in the other extensive island regions of the Pacific.

No inquiry into the formation of the Japanese race can be understood without taking into account the long sway of the feudal system that, as we have seen, was originally common to both peoples—the Chinese and the Japanese. In China the feudal system was brought to an end by the usurpation of Chin Shih Hwangti, the Napoleon of China, B. C. 255; while in Japan the system continued on unbroken up to the time of the revolution of 1868, as a result of which the feudal lords, or Daimios, were 'mediatised,' and compelled to abandon their feudal rights in exchange for pensions from the State. The contrast in the civilization of the two peoples is essentially marked by this fact; for the Chinese social system, although nominally swayed by an all-powerful despotic emperor, proceeded along essentially democratic lines, based upon the semi-independence of the provinces formed out of the ancient feudal states, with village communes ruled by their self-elected 'elders,' practically undisturbed by the central power as long as they furnished the prescribed quatum of revenue in the shape of an extremely moderate land-tax. Hence the development in China of a local patriotism as distinguished from the intense national patriotism of the Japanese. In China the feudal era is only remembered as the time of the mythical Golden Age, when men's word was their bond (as is now the nominal reason given for every written contract, and so expressed in deeds and contracts to this day), and loyalty to the prince the first duty of man. The virtues of feudalism—truth, honour, chivalry, patriotism, sacrifice of self—seem to have become extinct in China from about the time of the fall of

the famous dynasty of 'Han,' that succeeded to the troublous times of the short-lived dynasty of Chin Shih Hwangti and his five degenerate successors—the time of the Burning of the Books and the building of the Great Wall. The Han dynasty, which gave to the Chinese their present cognomen of 'sons of Han,' as did the style of the First Emperor's patrimony, 'Chin,' give to his whole empire the European name of China, established the 'Middle Kingdom' as a progressive united empire, its laws and customs based upon the teachings of the ancient sages, whose writings the early emperors of the dynasty diligently restored to light, after their attempted destruction by Chin Shih Hwangti. The rule of the 'Han' resulted in making China the cynosure of surrounding nations during a glorious career extending over four centuries (B. C. 206 to A. D. 220). Their system of government was perfected under subsequent dynasties—notably under the 'Tang,' which reigned throughout the seventh, eighth, and ninth centuries, whose founder introduced the system, still in vogue, of selection of officials by competitive examination. In this period China may be said to have reached her zenith. During the struggles that followed upon the fall of the 'Han,' China was again split up for a term of forty years, and the short but famous epoch of the 'Three Kingdoms' set in. In the triangular duel that ensued, traces of the old conditions are still conspicuous in the chivalrous conduct of the combatants and their self-sacrificing loyalty to their chiefs, so vividly commemorated in the romantic history of the period, and in the shrines still kept up in honour of the heroes of that time, one of whom, Kwan-ue, canonized under the 'Sung' in the twelfth century, has been selected as the patron deity of the reigning Manchu dynasty, and is now known as Kwan-ti, the God of War. This romantic and chivalrous period is to-day the favourite theme of the historical plays, whose periodical representation delights and instructs every village throughout the huge Chinese Empire. As the Japanese deduce their civilization from China, and from it inherit their feudal system and the ethics it enunciates, so we find to-day the motive word for loyalty, and the nearest equivalent of our Western word 'chivalry,' in the Japanese word 'Bushidō,' which is the

Japanese pronunciation of the three Chinese words 'Wu shih Tao' = 'the path of the warrior.' While the phrase is now out of date and practically forgotten in China, it survives in Japan as the expression and motive of all loyal conduct between man and man, and may still prove the corrective to the self-seeking and chicane that seems inseparable from such commercial activity as that into which the versatile island-folk have during the past thirty years thrown their restless energy. Meanwhile, the ancient warlike spirit and determination, so different from the common love of peace at all costs, and the quiet spirit of resignation which distinguishes the mainland Asiatics, reigns as strong as ever, and is due undoubtedly to the late survival of the feudal system among the Japanese, as is their contempt for death, and the high honour in which the warrior is still held. Up to the commencement of the seventeenth century, Japanese history records an almost uninterrupted succession of internecine feudal wars. The struggle was finally brought to an end by the warrior Ieyasu, the founder of the Tokagawa rule, who routed the armies of the opposing feudal princes in the decisive battle of Seki-ga-hara, a wide heath situated not far from the shores of Lake Biwa. Ieyasu proved himself as able an administrator as he had shown himself warrior, and the system of government by which he settled the country kept it in profound peace, with the exception of religious disturbances due to the alternate favouring and persecution of Christianity, for a term of nearly three centuries, from A. D. 1603 to A. D. 1868, which latter year saw the end of the feudal system, exactly 2,123 years subsequent to the date of its abolition in China. In the same way that that remarkable innovator, the 'First Emperor,' broke up feudal China into thirty-six provinces, all dependent on the central power, so the successful revolutionary government in Japan, either as a coincidence or of intention, divided up the Mikado's empire into thirty-six prefectures or departments. The opening of the country to foreign influences, inaugurated by Commodore Perry's tactful visit to Shimoda in 1854, and the treaties resulting therefrom, would seem to have tolled the death-knell of feudalism, a system which has had a longer and stronger

hold upon Japan than upon any other country in the world, and which has thus exerted a correspondingly exceptional influence upon the character of the Japanese people. Modern Japanese writers on the subject express a doubt as to whether or no feudal traditions will continue to exert their influence on the Japanese character, and so infuse morality into business that the merchant shall be imbued with the principles of the Samurai warrior. At present, the feudal idea that a gentleman who soils his hand with trade can no longer remain a gentleman is still the popular one. But now the Samurai, who formerly relegated trade to the lowest class of their countrymen, are beginning themselves to enter the ranks as merchants, shipowners, and manufacturers; and the question now asked by many Japanese thinkers is: Will trade corrupt the warrior, or will Bushidō principles one day ennoble the calling of the merchant? Prophecy is at fault with a people like the Japanese; possibly the future may hold surprises in store for us in this domain also. A recent Japanese author defines Bushidō as 'the precepts of knight-hood'—the *Noblesse oblige* of the warrior class, the Samurai, originally guards = *soldurii*. The Samurai were farther under the influence of Shintoism, the ancient religious belief of the Japanese, akin to that of the early Chinese: submission to the sovereign as the vicegerent of God on earth, and reverence for ancestors (mistranslated as ancestral *worship*), and Nature-worship—the worship of the unseen and inscrutable, though ever-present, forces of nature. To these were added the ethical doctrines of Confucius and the more democratic teachings of Mencius. Confucius defined the five 'constants' of the Chun-tse, or Noble Man, as Benevolence, Uprightness, Decorum, Enlightenment, Sincerity. Of these, the Japanese seem to have selected the second and third (in Chinese, I, Li) as the watchword of the nobleman—in Japanese, 'Giri,' which is commonly rendered by our word 'duty'; to this, the Japanese characteristically added 'Courage,' which was to be taught by purposely inflicted hardship. Upon all these was superimposed the teaching of Buddhism, which seems to have had a fully equal power in taming the savage instincts of the Asiatic to that exercised by Christianity in taming our

own savage ancestry in the West. Thereby was enforced the first of the five virtues originally taught by Confucius—'Benevolence,'—and so 'Bushi no nasake,' the *tenderness of the warrior*, became proverbial. 'Li,' which we have translated above as 'Decorum,' but which in Japanese is rather rendered by 'Politeness,' Confucius placed third, and after Benevolence; hence the Japanese define politeness as a modest respect for the feelings of others, a duty not actuated solely by the fear of offending good taste; it includes 'Gracefulness,' a special quality of the warrior as exhibiting the most economical employment of force, and 'Fine Manners' as exhibiting power in repose. It also includes Honesty, which curiously enough comes last in the list of Confucian virtues, and which we, like the Japanese, derive from Honour; and the Mencian virtue of Shame, the root of all, in that it makes its successor ashamed of the least ignoble act. The insistence on self-control led to stoicism, and hence the small provocation, such as the slightest impeachment of his honour, with which the Samurai resorted to suicide, in the cruel form of the Hara-kiri. The beauty of the warrior-creed lies, not in its contempt for money, as such, but in its fixed belief that true service is not purchasable by, or repayable with, money; the Samurai believed alone in service without price, not because it was valueless, but because it was invaluable; the best service being immeasurable, money (the ostensible measure of value) cannot apply. Yet the principles of knighthood may be carried too far, as in the all but deification of the warrior's sword, the touching of which, only accidentally, by an outsider, was deemed an insult that could only be avenged with blood. The moral characteristic that mainly distinguishes the Japanese is 'Reticence': reticence in art, as shown by moderation in detail and in ornamentation: reticence in conduct, as shown by their self-control, and their treatment of children and animals without ever giving way to temper or blows: reticence in manners, as shown by simplicity of decoration in their homes and in their contempt for vulgar display. One notices in the Japanese the common Oriental lack of frankness and plain-speaking, coupled with an extreme politeness of manner: their long submission to a feudal despotism and government

espionage has doubtless led to this excessive caution. The inauguration of popular government in 1868 may, in the course of time, produce a change in this respect. Whether increased intercourse with the essentially vulgar West will, as many well-wishers fear, at the same time destroy the old simplicity of living, the future will show.

The titanic struggle now proceeding in Manchuria demonstrates that willing self-sacrifice, as dictated by the precepts of Bushidō, is to-day as freely offered as it ever was, while the result of the contest between 'brains' and brute force is the same now as of old—

*Vis consili expers mole ruit sua:
Vim temperatam di quoque provehunt
In matas.*

The final result is no longer in doubt: the attainment of this result is a warning to the West to revise its estimate of the East in general, and in particular to note, if not to copy, the teaching and the methods by which the result has been reached, and farther, to learn the lesson that Providence is not necessarily upon the side of the Christian West.

In any case, the extraordinary contrast we find to-day between the Chinese and Japanese, both branches of one family, affords a most interesting subject of study and a theme for endless prophecies. Indeed, all the various peoples contained in the region known as the 'Far East,' that we have here attempted to depict, all of the same stock, and all deriving their civilization from a common source, deserve an exhaustive description where we have only attempted an impressionist sketch. The time will come when the Far East will be thought worthy of the same historical research that savants have devoted to the countries bordering the Mediterranean and the 'Near East'—the site of our own intellectual ancestry; but the language difficulty remains an obstacle, never to be completely overcome. To such exhaustive treatment in the time coming, the present work may perhaps serve as a modest introduction.

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